=> file registry
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'REGISTRY' ENTERED AT 14:46:08 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 22 OCT 2007 HIGHEST RN 951207-62-8 DICTIONARY FILE UPDATES: 22 OCT 2007 HIGHEST RN 951207-62-8

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> d l1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 106266-06-2 REGISTRY

ED Entered STN: 24 Jan 1987

CN 4H-Pyrido[1,2-a]pyrimidin-4-one, 3-[2-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-piperidinyl]ethyl]-6,7,8,9-tetrahydro-2-methyl- (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,2-Benzisoxazole, 4H-pyrido[1,2-a]pyrimidin-4-one deriv.

OTHER NAMES:

CN R 64766

CN Rispadal

CN Risperdal

CN Risperidal

CN Risperidone

CN Spiron

MF C23 H27 F N4 O2

CI COM

SR CA

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK\*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data)
Other Sources: WHO

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2373 REFERENCES IN FILE CA (1907 TO DATE)

13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2385 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s quetiapine/cn

L2 1 QUETIAPINE/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 111974-69-7 REGISTRY

ED Entered STN: 19 Dec 1987

CN Ethanol, 2-[2-(4-dibenzo[b,f][1,4]thiazepin-11-yl-1-piperazinyl)ethoxy]-(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Dibenzo[b,f][1,4]thiazepine, ethanol deriv.

OTHER NAMES:

CN Quetiapine

DR 264256-90-8

MF C21 H25 N3 O2 S

CI COM

SR CA

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, DDFU, DRUGU, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MRCK\*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data)

 $HO-CH_2-CH_2-O-CH_2-CH_2$ 

916 REFERENCES IN FILE CA (1907 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
925 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s olanzapine/cn

L3 1 OLANZAPINE/CN

=> s 13

L4 1 OLANZAPINE/CN

=> d 14

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 132539-06-1 REGISTRY

ED Entered STN: 08 Mar 1991

CN 10H-Thieno[2,3-b][1,5]benzodiazepine, 2-methyl-4-(4-methyl-1-piperazinyl)-(CA INDEX NAME)

OTHER NAMES:

CN Lanzac

CN LY 170053

CN Olanzapine

CN Zyprexa

MF C17 H20 N4 S

CI COM

SR US Adopted Names Council (USAN)

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IMSCOSEARCH, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK\*, PATDPASPC, PHAR, PIRA, PROMT, PROUSDDR, PS, RTECS\*, SCISEARCH, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL (\*File contains numerically searchable property data)

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2192 REFERENCES IN FILE CA (1907 TO DATE)
25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2201 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s ziprasidone/cn

L5 1 ZIPRASIDONE/CN

=> d 15

```
ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN
L5
     146939-27-7 REGISTRY
RN
     Entered STN: 13 Apr 1993
ED
     2H-Indol-2-one, 5-[2-[4-(1,2-benzisothiazol-3-yl)-1-piperazinyl]ethyl]-6-
CN
     chloro-1,3-dihydro- (CA INDEX NAME)
OTHER NAMES:
     5-[2-[4-(1,2-Benzisothiazol-3-yl)-1-piperazinyl)ethyl]-6-chloro-1,3-
     dihydro-2H-indol-2-one
CN
     5-[2-[4-(1,2-Benzisothiazol-3-yl)-1-piperazinyl]ethyl]-6-chloro-2-
     indolinone
     5-[2-[4-(Benzo[d]isothiazol-3-yl)piperazin-1-yl]ethyl]-6-chloro-1,3-
CN
     dihvdroindol-2-one
CN
     CP 88059
     Geodon
CN
CN
     Zaprasidone
CN
     Ziprasidone
     C21 H21 Cl N4 O S
MF
CI
     World Health Organization (WHO)
SR
     STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, CA, CAPLUS,
LC
       CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, IMSDRUGNEWS, IMSPATENTS,
       IMSRESEARCH, IPA, MEDLINE, MRCK*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS,
       RTECS*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
     Other Sources:
```

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

704 REFERENCES IN FILE CA (1907 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
707 REFERENCES IN FILE CAPLUS (1907 TO DATE)

 L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN 129722-12-9 REGISTRY

ED Entered STN: 05 Oct 1990

CN 2(1H)-Quinolinone, 7-[4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydro- (CA INDEX NAME)

OTHER NAMES:

CN 7-[4-[4-(2,3-Dichlorophenyl)-1-piperazinyl]butoxy]-3,4-dihydrocarbostyril

CN Abilify

CN Abilitat

CN Aripiprazole

CN OPC 14597

CN OPC 31

DR 156680-99-8

MF C23 H27 C12 N3 O2

CI COM

SR CA

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, HSDB\*, IMSDRUGNEWS, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK\*, PATDPASPC, PHAR, PROMT, PROUSDDR, PS, RTECS\*, SCISEARCH, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL

(\*File contains numerically searchable property data) Other Sources: WHO

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

548 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
556 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fiel stnguide

FIEL IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> file stnguide

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 40.35 40.56

FULL ESTIMATED COST

FILE 'STNGUIDE' ENTERED AT 14:47:23 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> file hcaplus
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.12 40.68

FILE 'HCAPLUS' ENTERED AT 14:48:40 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Oct 2007 VOL 147 ISS 18 FILE LAST UPDATED: 22 Oct 2007 (20071022/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s L1-L6

2385 L1 925 L2 2201 L3 2201 L4

707 L5 556 L6

L7 4414 (L1 OR L2 OR L3 OR L4 OR L5 OR L6)

=> s dopamine(2a)d4

90586 DOPAMINE

14213 D4

L8 1434 DOPAMINE (2A) D4

=> s 17 and 18

L9 65 L7 AND L8

=> s 19 and (PY<2003 or AY<2003 or PRY<2003)

22908173 PY<2003 4465709 AY<2003 3944515 PRY<2003

L10 24 L9 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file stnguide

COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 2.60 43.28

FILE 'STNGUIDE' ENTERED AT 14:48:48 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d l10 1-24 ti YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- L10 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Stereoisomers of p-hydroxy-milnacipran, and therapeutic use
- L10 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI In vitro and in vivo pharmacological profile of 4-(4-fluorobenzylidene)-1-{2-[5-(4-fluorophenyl)-1H-pyrazol-4-yl]ethyl} piperidine (NRA0161)
- L10 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Schizophrenia: genesis, receptorology and current therapeutics
- L10 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- L10 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Dopamine receptor responsivity in schizophrenic patients in a drug-free state and after treatment with olanzapine
- L10 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Long-term effects of olanzapine, risperidone, and quetiapine on dopamine receptor types in regions of rat brain: implications for antipsychotic drug treatment
- L10 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 receptors in agonist-stimulated [35S]GTPγS binding assays
- L10 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Nonconserved residues in the second transmembrane-spanning domain of the D4 dopamine receptor are molecular determinants of D4-selective pharmacology
- L10 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Increase of Dialysate Dopamine in the Bed Nucleus of Stria Terminalis by Clozapine and Related Neuroleptics
- L10 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI The receptor binding profile of cis-flupentixol
- L10 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats
- L10 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Expression and characterization of a dopamine D4R variant associated with delusional disorder
- L10 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Differential regulation of D2 and D4 dopamine receptor mRNAs in the primate cerebral cortex vs. neostriatum: effects of chronic treatment with typical and atypical antipsychotic drugs
- L10 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys

- L10 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI [35S]Guanosine-5'-O-(3-thio)triphosphate binding as a measure of efficacy at human recombinant dopamine D4.4 receptors: actions of antiparkinsonian and antipsychotic agents
- L10 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys
- L10 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Alniditan, a new 5-hydroxytryptaminelD agonist and migraine-abortive agent: ligand-binding properties of human 5-hydroxytryptaminelD $\alpha$ , human 5-hydroxytryptaminelD $\beta$ , and calf 5-hydroxyptryptamineaD receptors investigated with [3H]5-hydroxytryptamine and [3H]alniditan
- L10 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Iloperidone binding to human and rat dopamine and 5-HT receptors
- L10 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Effects of typical and atypical antipsychotic drugs on freezing behavior induced by conditioned fear
- L10 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of imidazo[1,2-a]pyridines dopamine D4 -receptor antagonist cardiovascular and CNS agents
- L10 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Radioreceptor binding profile of the atypical antipsychotic olanzapine
- L10 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI D4 dopamine receptor binding affinity does not distinguish between typical and atypical antipsychotic drugs
- L10 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Does the dopamine receptor subtype selectivity of antipsychotic agents provide useful leads for the development of novel therapeutic agents?
- L10 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Biphasic displacement of [3H]YM-09151-2 binding in the rat brain by thioridazine, risperidone and clozapine, but not by other antipsychotics

=> d 110 1-24 ti abs bib YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- L10 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Stereoisomers of p-hydroxy-milnacipran, and therapeutic use
- AB The invention relates generally to the enantiomers of p-hydroxymilnacipran or congeners thereof. Biol. assays revealed that racemic p-hydroxymilnacipran is approx. equipotent in inhibiting serotonin and norepinephrine uptake (IC50 = 28.6 nM for norepinephrine, IC50 = 21.7 nM for serotonin). Interestingly, (+)-p-hydroxymilnacipran is a more potent inhibitor of norepinephrine uptake than serotonin uptake (IC50 = 10.3 nM for norepinephrine, IC50 = 22 nM for serotonin). In contrast, (-)-p-hydroxymilnacipran is a more potent inhibitor of serotonin uptake compared to norepinephrine uptake (IC50 = 88.5 nM for norepinephrine, IC50 = 40.3 nM for serotonin). The invention also relates to salts and prodrug forms of the above compds. In certain embodiments, the compds. of the invention and a pharmaceutically acceptable excipient are combined to prepare a formulation for administration to a patient. Finally, the invention relates to methods of treating mammals suffering from various afflictions, e.g., depression, chronic pain, or fibromyalgia, comprising

administering to a mammal in need thereof a therapeutically effective amount of a compound of the invention. Compound preparation is included. 2004:392439 HCAPLUS <<LOGINID::20071023>> ANDN 140:400095 Stereoisomers of p-hydroxy-milnacipran, and therapeutic use ΤI Rariy, Roman V.; Heffernan, Michael; Buchwald, Stephen L.; Swager, Timothy IN Collegium Pharmaceutical, Inc., USA PA so PCT Int. Appl., 163 pp. CODEN: PIXXD2 DT Patent LA English FAN.CNT 6 APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_ \_\_\_\_\_\_ --------------WO 2004039320 A2 20040513 WO 2003-US33681 20031022 <--PΙ 20040624 WO 2004039320 **A**3 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2003-2503381 CA 2503381 A1 20040513 20031022 <--AU 2003284342 Al 20040525 AU 2003-284342 20031022 <--US 2004142904 A1 20040722 US 2003-691465 20031022 <--US 7038085 B2 20060502 EP 1578719 A2 20050928 EP 2003-776524 20031022 <--AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK 20060202 JP 2005-501895 JP 2006503920 Т 20031022 <--MX 2005PA04381 Α 20060210 MX 2005-PA4381 20050422 <--IN 2005-CN1003 20050524 <--IN 2005CN01003 Α 20070824 PRAI US 2002-421640P P 20021025 <--P US 2002-423062P 20021101 <--US 2003-445142P P 20030205 WO 2003-US33681 W 20031022 os MARPAT 140:400095 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN L10 In vitro and in vivo pharmacological profile of 4-(4-fluorobenzylidene)-1-TI {2-[5-(4-fluorophenyl)-1H-pyrazol-4-yl]ethyl} piperidine (NRA0161) Atypical antipsychotic properties of 4-(4-fluorobenzylidene)-1-{2-[5-(4-AB fluorophenyl)-1H-pyrazol-4-yl]ethyl} piperidine (NRA0161) were investigated by in vitro receptor affinities, in vivo receptor occupancies and findings were compared with those of risperidone and haloperidol in rodent behavioral studies. In in vitro receptor binding studies, NRA0161 has a high affinity for human cloned dopamine D4 and 5-HT2A receptor with Ki values of 1.00 and 2.52 nM, resp. NRA0161 had a relatively high affinity for the  $\alpha l$  adrenoceptor (Ki; 10.44 nM) and a low affinity for the dopamine D2 receptor (Ki; 95.80 nM). In in vivo receptor binding studies, NRA0161 highly occupied the 5-HT2A receptor in rat frontal cortex. In contrast, NRA0161 did not occupy the striatal D2 receptor. In behavioral studies, NRA0161, risperidone and haloperidol antagonized the locomotor hyperactivity in mice, as induced by methamphetamine (MAP). At a higher dosage, NRA0161, risperidone and

haloperidol dose-dependently antagonized the MAP-induced stereotyped behavior in mice and NRA0161 dose-dependently and significantly induced catalepsy in rats. The ED50 value in inhibiting the MAP-induced locomotor hyperactivity was 30 times lower than that inhibiting the MAP-induced

stereotyped behavior and 50 times lower than that which induced catalepsy. These findings suggest that NRA0161 may have atypical antipsychotic activities yet without producing extrapyramidal side effects.

- AN 2002:725209 HCAPLUS <<LOGINID::20071023>>
- DN 138:379011
- TI In vitro and in vivo pharmacological profile of 4-(4-fluorobenzylidene)-1-{2-[5-(4-fluorophenyl)-1H-pyrazol-4-yl]ethyl} piperidine (NRA0161)
- AU Suzuki, Yoshiko; Funakoshi, Takeo; Chaki, Shigeyuki; Kawashima, Naoya; Ogawa, Shin-ichi; Kumagai, Toshihito; Nakazato, Atsurou; Komurasaki, Toshi; Okuyama, Shigeru
- CS Molecular Biology Laboratory, Taisho Pharmaceutical Co., Ltd., Saitama-shi, Saitama, 330-8530, Japan
- SO Life Sciences (2002), 71(22), 2603-2615 CODEN: LIFSAK; ISSN: 0024-3205
- PB Elsevier Science Inc.
- DT Journal
- LA English
- RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Schizophrenia: genesis, receptorology and current therapeutics
- A review. Schizophrenia is a debilitating mental disease affecting AΒ approx. 1% of the population worldwide. Since the discovery of the first modern treatment for schizophrenia, chlorpromazine, in 1952 there have been many new structures investigated, only a small fraction of which have resulted in clin. useful drugs. Of these, haloperidol may be regarded as the drug for first line treatment. Since then, clozapine has emerged as the benchmark therapeutic ameliorating pos. and neg. symptoms and devoid of movement disorders, with its greatest feature being improvement of treatment-resistant patients. However, a major, potential lethal side-effect of clozapine is the induction of agranulocytosis, a blood disorder with unknown mechanism that results in lowered white-blood cell counts and consequent susceptibility to infections. In the 50 yr of antipsychotic drug development, several novel theories have evolved that focus on receptor sub-types (serotonin 5-HT2A, dopamine D2 and D4) and the degree to which they need to be selectively attenuated by the drugs. Also of significance is the location of these receptors in the brain in relation to the disease state, the myriad of side-effects associated with antipsychotics and physicochem. properties of antipsychotic mols. relative to models of the drugs and the GPCR receptors involved. The techniques for investigation have shown increasing sophistication and refinement over this period, involving cloned receptors and PET scanning for determination of receptor location, d. and binding, and rate consts. at receptors. Knowledge of receptor structure, although in its infancy since no membrane bound CNS-receptor has yet been crystallized, is likely to benefit substantially with advances in computer-aided modeling. Overall, these new techniques have resulted in a number of novel antipsychotics such as risperidone, sertindole, olanzapine, seroquel, zotepine and ziprasidone, whose design, synthesis and testing has benefited enormously from the accumulated knowledge base of the past 50 yr. In this review, we will provide a comprehensive update of the theories of action and clin. profiles of the latest drugs listed. The following appraisal of the literature will provide the practising medicinal chemist interested in this critical area of research with sufficient insight and understanding, to embark on productive investigations into the design and development of new therapeutic agents devoid of clin. limiting side-effects.
- AN 2002:275553 HCAPLUS <<LOGINID::20071023>>
- DN 137:163110
- TI Schizophrenia: genesis, receptorology and current therapeutics
- AU Capuano, B.; Crosby, I. T.; Lloyd, E. J.
- CS Department of Medicinal Chemistry, Victorian College of Pharmacy, Monash University, Parkville, 3052, Australia
- SO Current Medicinal Chemistry (2002), 9(5), 521-548

CODEN: CMCHE7; ISSN: 0929-8673

- PB Bentham Science Publishers
- DT Journal; General Review
- LA English
- RE.CNT 286 THERE ARE 286 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- AB Ziprasidone is a novel antipsychotic agent with a unique combination of pharmacol. activities at human receptors. Ziprasidone has high affinity for human 5-HT receptors and for human dopamine D2 receptors. Ziprasidone is a 5-HT1A receptor agonist and an antagonist at 5-HT2A, 5-HT2C and 5-HT1B/1D receptors. Addnl., ziprasidone inhibits neuronal uptake of 5-HT and norepinephrine comparable to the antidepressant imipramine. This unique pharmacol. profile of ziprasidone may be related to its clin. effectiveness as a treatment for the pos., neg. and affective symptoms of schizophrenia with a low propensity for extrapyramidal side effects, cognitive deficits and weight gain.
- AN 2001:609740 HCAPLUS <<LOGINID::20071023>>
- DN 136:477
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- AU Schmidt, A. W.; Lebel, L. A.; Howard, H. R.; Zorn, S. H.
- CS Groton Laboratories, CNS Discovery, Pfizer Global Research and Development, Groton, CT, 06340-1596, USA
- SO European Journal of Pharmacology (2001), 425(3), 197-201 CODEN: EJPHAZ; ISSN: 0014-2999
- PB Elsevier Science B.V.
- DT Journal
- LA English
- RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Dopamine receptor responsivity in schizophrenic patients in a drug-free state and after treatment with olanzapine
- AB Olanzapine is a novel atypical antipsychotic with affinity for a number of neurotransmitter receptors including dopamine D1, D2, D4 , serotonin 5HT2A, 5HT2C, histamine H1, al-adrenergic, and muscarinic receptors. A neuroendocrinol. method to check the degree of dopamine receptor blocking is by measuring the prolactin (PRL) responses to acute (i.m.) administration of haloperidol (HAL). The authors applied this test in a group of male patients with DSM-IV schizophrenia in the drug-free The patients were subsequently treated with olanzapine (OLZ) (mean state. daily dose: 22.5±5.8) and the test was repeated six weeks later. For the HAL-test, 5mg HAL were injected i.m. and blood samples were taken at times 0, 30, 60, 90 and 120 min. Fourteen patients enrolled in the study. Psychopathol. was assessed by means of the Brief Psychiatric Rating Scale (BPRS). Six weeks treatment with OLZ resulted in significant decreases in the total BPRS score and on the score of its subscales for pos., neg., and general psychopathol. Comparison of the PRL response patterns, after HAL administration by anal. of variance for repeated measures (ANOVAR) for drug treatment and time, revealed a highly significant time effect (F=28.98, p=0.000) and a significant treatment by time interaction (F=8.27, p=0.000008). Namely, in the drug-free state significant increases were found in the PRL levels after i.m. HAL administration which were significantly reduced during treatment with OLZ, indicating moderate receptor blockade.
- AN 2001:350432 HCAPLUS <<LOGINID::20071023>>
- DN 135:221172
- TI Dopamine receptor responsivity in schizophrenic patients in a drug-free state and after treatment with olanzapine

- Lykouras, Lefteris; Markianos, Manolis; Hatzimanolis, John; Oulis, AU Panayotis
- Athens University Medical School Department of Psychiatry, Schizophrenia CS Research Program, Eginition Hospital, Athens, 11528, Greece
- Progress in Neuro-Psychopharmacology & Biological Psychiatry (2001 SO ), 25(3), 507-518 CODEN: PNPPD7; ISSN: 0278-5846
  - Elsevier Science Inc.
- PB Journal DT
- LA English
- RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- Long-term effects of olanzapine, risperidone, and quetiapine on dopamine TIreceptor types in regions of rat brain: implications for antipsychotic drug treatment
- Changes in members of the dopamine (DA) D1-like (D1, D5) and D2-like (D2, AB D3, D4) receptor families in rat forebrain regions were compared by quant. in vitro receptor autoradiog. after prolonged treatment (28 days) with the atypical antipsychotics olanzapine, risperidone, and quetiapine. Olanzapine and risperidone, but not quetiapine, significantly increased D2 binding in medial prefrontal cortex (MPC; 67% and 34%), caudate-putamen (CPu; average 42%, 25%), nucleus accumbens (NAc; 37%, 28%), and hippocampus (HIP; 53%, 30%). Olanzapine and risperidone, but not quetiapine, produced even greater up-regulation of D4 receptors in CPu (61%, 37%), NAc (65%, 32%), and HIP (61%, 37%). D1-like and D3 receptors in all regions were unaltered by any treatment, suggesting their minimal role in mediating actions of these antipsychotics. The findings support the hypothesis that antipsychotic effects of olanzapine and risperidone are partly mediated by D2 receptors in MPC, NAc, or HIP, and perhaps D4 receptors in CPu, NAc, or HIP, but not in cerebral cortex. Selective up-regulation of D2 receptors by olanzapine and risperidone in CPu may reflect their ability to induce some extra-pyramidal effects. Inability of quetiapine to alter DA receptors suggests that non-dopaminergic mechanisms contribute to its antipsychotic effects.
- 2001:321641 HCAPLUS <<LOGINID::20071023>> AN
- DN 135:132309
- Long-term effects of olanzapine, risperidone, and quetiapine on dopamine ΤI receptor types in regions of rat brain: implications for antipsychotic drug treatment
- ΑU Tarazi, Frank I.; Zhang, Kehong; Baldessarini, Ross J.
- CS Mailman Research Center, McLean Division of Massachusetts General Hospital, Belmont, MA, USA
- SO Journal of Pharmacology and Experimental Therapeutics (2001), 297(2), 711-717 CODEN: JPETAB; ISSN: 0022-3565
  - American Society for Pharmacology and Experimental Therapeutics
- DT Journal

PΒ

- LΑ English
- RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 TI receptors in agonist-stimulated [35S]GTPyS binding assays
- AB Dopamine receptor agonists and antagonists have been extensively characterized in radioligand binding assays; only a limited number of labs. have characterized them using a functional assay at multiple receptor subtypes. Expts. were designed to assess four agonists and seven antagonists at three cloned human dopamine receptors using agonist-stimulated [35S]GTP $\gamma$ S binding assays in membranes to quantify the initial cellular event following ligand/receptor interaction. In this model there is constitutive G protein activity

(agonist-independent [35S]GTPyS binding) and potentially constitutive dopamine receptor activity. Thus, discrimination between silent antagonists, partial agonists and inverse agonists is theor. possible. It was anticipated that distinctions could be made regarding efficacy of the seven receptor antagonists to provide insight regarding the therapeutic use of antipsychotic drugs. In membranes prepared from CHO cells transfected to express high densities of human D2short, D4.2 or D4.7 receptors, the dopamine receptor agonists apomorphine, pergolide, quinelorane and quinpirole produced concentration-dependent increases in agonist-stimulated [35S]GTPyS binding. At the hD2short receptor, pergolide and apomorphine were essentially equipotent and more potent than quinelorane and quinpirole; all four agonists displayed similar efficacy at this receptor. At the hD4.2 and the hD4.7 receptors apomorphine was the most potent and pergolide the least efficacious of the four drugs. The ability (both potency and efficacy) of clozapine, haloperidol, olanzapine, quetiapine, risperidone, spiperone and ziprasidone to block apomorphine-stimulated [35S]GTPγS binding and alter basal [35S]GTP $\gamma$ S binding was also assessed. All of the antagonists inhibited apomorphine-stimulated [35S]GTPYS binding with potencies (Kb values) similar to and in rank order consistent with their affinities reported in the literature using radioligand binding assays. Addnl., none of the antagonists altered basal, agonist-independent [35S]GTPyS binding, thus they behaved as pure, silent antagonists at D2short, D4.2  $^{\circ}$ and D4.7 receptors under our conditions. In summary, the data suggest that therapeutic distinctions between typical and atypical antipsychotic drugs cannot be made based on their function at D2short, D4.2 and D4.7 subtypes of dopamine receptors.

- AN 2000:295079 HCAPLUS <<LOGINID::20071023>>
- DN 133:114944
- TI Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 receptors in agonist-stimulated [35S]GTPyS binding assays
- AU Gilliland, S. L.; Alper, R. H.
- CS Toxicology and Therapeutics, Department of Pharmacology, University of Kansas Medical Center, Kansas City, KS, 66160-7417, USA
- SO Naunyn-Schmiedeberg's Archives of Pharmacology (2000), 361(5), 498-504
  - CODEN: NSAPCC; ISSN: 0028-1298
- PB Springer-Verlag
- DT Journal
- LA English
- RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Nonconserved residues in the second transmembrane-spanning domain of the D4 dopamine receptor are molecular determinants of D4-selective pharmacology
- The mol. determinants that govern selective ligand binding to the rat AB D4 dopamine receptor were investigated by substituting D2 dopamine receptor sequences into a D4 dopamine receptor background. The resulting mutant D4 dopamine receptors were then screened with a panel of 10 selective and nonselective ligands, which included two allosteric modulators as sensitive measures of protein conformational changes. Mutation of a phenylalanine at position 88 in the second transmembrane-spanning domain (TMS2) of the D4 receptor to the corresponding valine in the D2 receptor D4-F88V resulted in an .apprx.100-fold decrease in the affinity of the highly D4-selective drug L-750667 without substantially affecting the binding of the other ligands. Mutations at the extracellular side of D4-TMS3 produced moderate decreases in L-750667 binding affinities with concomitant increases in binding affinity for the  $D^2/D^3$ -selective antagonist (-)-raclopride. However, the binding affinities of these same D4-TMS3 mutants for the allosteric modulator isomethylbutylamiloride also were an anomalous 6- to 20-fold higher than either wild-type receptor. In the combined D4-F88V/TMS3

mutants, L-750667 binding affinity was further decreased, but this decrease was not additive. More importantly, the combined D4-F88V/TMS3 mutants had (-)-raclopride and isomethylbutylamiloride binding properties that reverted back to those of the wild-type D4-receptor. In contrast to the D4-F88V mutant, the adjacent D4-L87W mutant had an increased affinity for ligands with extended structures, but had essentially no effect on ligands with compact structures. These findings demonstrate that two residues near the extracellular side of D4-TMS2 are critical mol. determinants for the selective binding of L-750667 and ligands with extended structures.

- AN 2000:17474 HCAPLUS <<LOGINID::20071023>>
- DN 132:146748
- TI Nonconserved residues in the second transmembrane-spanning domain of the D4 dopamine receptor are molecular determinants of D4-selective pharmacology
- AU Schetz, John A.; Benjamin, Peter S.; Sibley, David R.
- CS Molecular Neuropharmacology Section, Experimental Therapeutics Branch, National Institute of Neurological Disorders and Stroke, National Institutes of Health, Bethesda, MD, USA
- SO Molecular Pharmacology (2000), 57(1), 144-152 CODEN: MOPMA3; ISSN: 0026-895X
- PB American Society for Pharmacology and Experimental Therapeutics
- DT Journal
- LA English
- RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Increase of Dialysate Dopamine in the Bed Nucleus of Stria Terminalis by Clozapine and Related Neuroleptics
- AB Neuroleptics are known to stimulate dopamine release in neostriatal terminal areas. In the present study, we have investigated by brain microdialysis in freely moving rats the effect of typical and atypical neuroleptics on dopamine transmission in the bed nucleus of stria terminalis, a dopamine terminal area belonging to the limbic system and recently assigned the so-called extended amygdala. Mean basal dialyzate dopamine values were 14.3 f moles/20 µl sample. Dopamine output in dialyzates was increased dose-dependently by clozapine (maximum +158%, 298%, and 461% of basal at 5, 10, and 20 mg/kg IP, resp.), risperidone (maximum +115% and 221% of basal at 1 and 3 mg/kg IP, resp.), olanzapine (maximum +138% and 235% of basal at 3 and 6 mg/kg IP, resp.), BIMG 80 (maximum +64% and 164% of basal at 3 and 5 mg/kg IP, resp.), amperozide (maximum +110% and 194% of basal at 3 and 6 mg/kg IP, resp.). The selective dopamine D4 antagonist L-745,870 increased dialyzate dopamine but at rather high doses and not as effectively as clozapine (maximum +32%, 89%, and 130% of basal at 2.7, 5.4, and 10.8 mg/kg IP, resp.). The typical neuroleptic haloperidol (0.1 and 0.5 mg/kg SC) and the selective D2 antagonist raclopride (0.14, 0.56, and 2.1 mg/kg SC), the serotonergic 5-HT2 antagonist ritanserin (0.5 and 1.5 mg/kg IP), and the adrenergic  $\alpha 1$ antagonist prazosin (0.91 and 2.73 mg/kg IP) did not affect dialyzate dopamine in the bed nucleus of stria terminalis. Saline (1 mL/kg SC or 3 mL/kg IP) did not modify dialyzate dopamine. Therefore, atypical neuroleptics share the ability of stimulating dopamine transmission in the bed nucleus of stria terminalis, but this property is not mimicked by any of the drug tested that selectively act on individual receptors among those that are affected by atypical neuroleptics. These observations raise the possibility that the property of increasing dopamine transmission in the bed nucleus of stria terminalis is the result of combined blockade of dopamine, serotonin, and noradrenaline receptors and that might be predictive of an atypical neuroleptic profile.
- AN 2000:10312 HCAPLUS <<LOGINID::20071023>>
- DN 133:572
- TI Increase of Dialysate Dopamine in the Bed Nucleus of Stria Terminalis by Clozapine and Related Neuroleptics

- AU Carboni, E.; Rolando, M. T. P.; Silvagni, A.; Di Chiara, G.
- CS C.N.R. Center for Neuropharmacology, Department of Toxicology, University of Cagliari, Cagliari, Italy
- SO Neuropsychopharmacology (1999), Volume Date 2000, 22(2), 140-147 CODEN: NEROEW; ISSN: 0893-133X
- PB Elsevier Science Inc.
- DT Journal
- LA English
- RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI The receptor binding profile of cis-flupentixol
- AB The action profile was investigated of flupentixol on different neurotransmitter receptors in comparison with other neuroleptics. Its binding was studied to the dopamine receptor subtypes D1, D2S, D3, and D4-4 together with serotonin 5-HT2A-, 5HT2C-, and  $\alpha$ -adrenergic receptors. Cis-flupentixol differed from haloperidol. It showed similarities with atypical neuroleptics especially in its interaction with 5-HT2A- (and 5HT2C-) receptors and high affinity to dopamine-D1 receptors. The authors suggest its classification as atypical rather than typical (=classical) neuroleptic.
- AN 2000:249 HCAPLUS <<LOGINID::20071023>>
- DN 132:44885
- TI The receptor binding profile of cis-flupentixol
- AU Glaser, T.; Sommermeyer, H.; Fassbender, M.; Mauler, F.
- CS Germany
- SO Flupentixol Typisches oder Atypisches Wirkspektrum? : Pharmakologie, Antipsychotische Wirkung, neue Indikationen (1998), 9-21. Editor(s): Glaser, T.; Soyka, M. Publisher: Dr. Dietrich Steinkopff Verlag GmbH & Co. KG, Darmstadt, Germany. CODEN: 68MEAY
- DT Conference
- LA German
- RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats
- AB We have previously reported that (R)-(+)-2-amino-4-(4-fluorophenyl)-5-[1-[4-(4-fluorophenyl)-4-oxobut yl]pyrrolidin-3-yl]thiazole (NRA0045) is a novel antipsychotic agent with affinities for dopamine D4, 5-hydroxytryptamine 2A (5-HT2A) and  $\alpha$ 1 receptors. the present study, in vivo receptor occupancy of 5-HT2A,  $\alpha$ 1, dopamine D2 and D3 receptors by NRA0045 was assessed, based on in vivo and ex vivo receptor binding, and findings were compared to reference antipsychotic drugs (haloperidol, risperidone, clozapine). I.p. administration of haloperidol highly occupied the dopamine D2 receptor in the striatum and nucleus accumbens, and  $\alpha 1$  adrenoceptors in the frontal cortex. Occupation of the 5-HT2A receptor in the frontal cortex and the dopamine D3 receptor in the nucleus accumbens and islands of Calleja was moderate. By contrast, atypical antipsychotics such as risperidone and clozapine dose-dependently occupied the 5-HT2A receptor in the frontal cortex, with moderate to negligible occupancy of the D2 receptor in the striatum and the nucleus accumbens. Clozapine and risperidone also occupied the al adrenoceptor in the frontal cortex, and clozapine did not occupy the dopamine D3 receptor. As seen with other atypical antipsychotics, i.p. administration of NRA0045 dose-dependently occupied the 5-HT2A receptor and the  $\alpha$ l adrenoceptor in the frontal cortex, while it was without effect on dopamine D2 and D3 receptors in the striatum, nucleus accumbens and islands of Calleja. Thus, the strong occupancy of 5-HT2A and  $\alpha l$  receptors is involved in the pharmacol. action of NRA0045.

- DN 131:252464
- TI In vivo receptor occupancy of NRA0045, a putative atypical antipsychotic, in rats
- AU Chaki, Shigeyuki; Funakoshi, Takeo; Yoshikawa, Ryoko; Okuyama, Shigeru; Kumagai, Toshihito; Nakazato, Atsuro; Nagamine, Masashi; Tomisawa, Kazuyuki
- CS 1st Laboratory, Medicinal Research Laboratories, Taisho Pharmaceutical Co. Ltd., Saitama, 330-8530, Japan
- SO Neuropharmacology (1999), 38(8), 1185-1194 CODEN: NEPHBW; ISSN: 0028-3908
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Expression and characterization of a dopamine D4R variant associated with delusional disorder
- AB Multiple genetic polymorphisms of the human dopamine D4 receptor (hD4R) have been identified including a 12 bp repeat in exon 1 associated with a psychotic condition called delusional disorder. Competition binding assays revealed minor pharmacol. differences between the recombinant A1 (normal) and A2 (delusional) proteins with respect to quinpirole and the antipsychotic clozapine, however no functional differences were detected for receptor activation by dopamine, epinephrine, or norepinephrine. The results suggest that this polymorphism may only confer susceptibility to delusional disorder in combination with other genetic or environmental factors.
- AN 1998:72960 HCAPLUS <<LOGINID::20071023>>
- DN 128:191185
- TI Expression and characterization of a dopamine D4R variant associated with delusional disorder
- AU Zenner, Marie-Therese; Nobile, Maria; Henningsen, Robert; Smeraldi, Enrico; Civelli, Olivier; Hartman, Deborah S.; Catalano, Marco
- CS Preclinical Neuroscience, Hoffmann-La Roche, Pharmaceutical Research, Basel, 4070, Switz.
- SO FEBS Letters (1998), 422(2), 146-150 CODEN: FEBLAL; ISSN: 0014-5793
- PB Elsevier Science B.V.
- DT Journal
- LA English
- RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Differential regulation of D2 and D4 dopamine receptor mRNAs in the primate cerebral cortex vs. neostriatum: effects of chronic treatment with typical and atypical antipsychotic drugs
- The RNase Protection Assay was used to examine the regulation of D2 and AB D4 dopamine receptor mRNAs in the cerebral cortex and neostriatum of nonhuman primates after chronic treatment with a wide spectrum of antipsychotic medications (chlorpromazine, clozapine, haloperidol, molindone, olanzapine, pimozide, remoxipride and risperidone). Tiapride, a D2 antagonist that lacks antipsychotic activity, was also included. All drugs were administered orally for 6 mo at doses recommended for humans. All antipsychotic drug treatments examined in this study caused a statistically significant up-regulation of both the long and short isoforms of the D2 receptor mRNAs in the prefrontal and temporal cortex. Tiapride, in contrast, significantly up-regulated only the level of D2-long mRNA in these areas. The same drug treatments produced less uniform effects in the neostriatum than in the cortex: clozapine and olanzapine failed to significantly elevate either D2-long or D2-short receptor messages in this structure unlike all other drugs,

including tiapride. In both the cerebral cortex and striatum, D4 receptor mRNA was upregulated by certain typical (chlorpromazine and haloperidol) and certain atypical (clozapine, olanzapine and risperidone) antipsychotic agents as well as by tiapride. Other drugs of the typical (molindone and pimozide) and atypical (remoxipride) classes had no effect on D4 mRNA levels in either cortical or striatal tissue. The finding that up-regulation of D2 dopamine receptor mRNAs was a consistently observed effect of a wide range of antipsychotic agents in the cerebral cortex but not in the neostriatum, coupled with the fact that the D2-short isoforms in the cortex were not regulated by a non-antipsychotic D2 antagonist, tiapride, draws attention to the importance of the D2 dopamine receptor in the cerebral cortex as a potentially critical, common site of action of antipsychotic medications.

- AN 1997:749549 HCAPLUS <<LOGINID::20071023>>
- DN 128:70682
- TI Differential regulation of D2 and D4 dopamine receptor mRNAs in the primate cerebral cortex vs. neostriatum: effects of chronic treatment with typical and atypical antipsychotic drugs
- AU Lidow, Michael S.; Goldman-Rakic, Patricia S.
- CS Section of Neurobiology, Yale University School of Medicine, New Haven, CT, USA
- SO Journal of Pharmacology and Experimental Therapeutics (1997), 283(2), 939-946
  CODEN: JPETAB; ISSN: 0022-3565
- PB Williams & Wilkins
- DT Journal
- LA English

N-oxidation

- RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN L10 Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys TI Olanzapine (OLZ) is a novel antipsychotic agent with a high affinity for AB serotonin (5-HT2), dopamine (D1/D2/D4), muscarinic (m1-m5), adrenergic  $(\alpha 1)$ , and histamine (H1) receptors. The pharmacokinetics, excretion, and metabolism of OLZ were studied in CD-1 mice, beagles dogs, and rhesus monkeys after a single oral and/or i.v. dose of [14C]OLZ. After oral administration, OLZ was well absorbed in dogs (absolute bioavailability of 73%) and to the extent of at least 55% in monkeys and 32% in mice. The terminal elimination half-life of OLZ was relatively short in mice and monkeys, (-3 h) and long in dogs (-9 h). In mice and dogs, radioactivity was predominantly eliminated in feces; but, in monkeys, the major route of elimination of radioactivity was urine. Dogs and monkeys excreted in urine, resp., 38% and 55% of the dose over a 168-h period, whereas the fraction of the dose excreted in urine of mice over the collection period (120 h) was 32%. OLZ was subject to substantial first-pass metabolism; at the tmax, OLZ accounted for 19%, 18% and 18% of the radioactivity in mice, dogs, and monkeys, resp. The ratio of AUC OLZ to AUC radioactivity was resp., 10%, 14%, and 4% in mice, dogs, and monkeys. The principal urinary metabolites in mice were 7-hydroxy OLZ glucuronide, 2-hydroxymethyl OLZ, and 2-carboxy OLZ accounting for .apprx.10%, 4%, and 2% of the dose. Metabolites that were present in urine in lesser amts. were 7-hydroxy OLZ, N-desmethyl OLZ, and N-desmethyl-2-hydroxymethyl OLZ. In dogs, the major metabolite accounting for 8% of the dose was 7-hydroxy-N-oxide OLZ. Other metabolites identified were 2-hydroxymethyl OLZ, 2-carboxy OLZ, N-oxide OLZ, 7-hydroxy OLZ, and its glucuronide and N-desmethyl OLZ. The major metabolite in monkey urine was N-desmethyl-2-carboxy OLZ, and accounted for .apprx.17% of the dose. In addition, N-oxide-2-hydroxymethyl OLZ, N-oxide-2-carboxy OLZ, N-desmethyl-2-hydroxymethyl, 2-carboxy OLZ, and 2-hydroxymethyl OLZ were identified in monkeys urine. Thus, in mice and dogs, OLZ was metabolized through aromatic hydroxylation, allylic oxidation, N-dealkylation, and

reactions. In monkeys, OLZ was biotransformed mainly through double

oxidation reactions involving the allylic carbon and Me piperazine nitrogen. Whereas the oxidative metabolic profile of OLZ in animals was similar to that of humans, animals were notable for not forming appreciable amts. of the principal human metabolite (i.e. 10-N-glucuronide OLZ).

AN 1997:634273 HCAPLUS <<LOGINID::20071023>>

Correction of: 1997:329809

DN 127:215146

Correction of: 127:60154

TI Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys

AU Mattiuz, Edward; Franklin, Ronald; Gillespie, Todd; Murphy, Anthony;

Bernstein, John; Chiu, Andre; Hotten, Terry; Kassahun, Kelem

CS Dep. Drug Metabolism, Lilly Corp. Cent., Eli Lilly Co., Indianapolis, IN, 46285, USA

SO Drug Metabolism and Disposition (1997), 25(5), 573-583 CODEN: DMDSAI; ISSN: 0090-9556

PB Williams & Wilkins

DT Journal

LA English

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

TI [35S]Guanosine-5'-O-(3-thio)triphosphate binding as a measure of efficacy at human recombinant dopamine D4.4 receptors: actions of antiparkinsonian and antipsychotic agents

AB Recombinant human dopamine D4.4 receptor-mediated G protein activation was characterized in membranes of transfected mammalian (Chinese hamster ovary) cells by the use of [35S]guanosine-5'-O-(3-thio)triphosphate ([35S]GTPγS) binding. An initial series of expts. defined the conditions (3 μM GDP, 100 mM NaCl, 3 mM MgCl2) under which optimal stimulation (2.2-fold increase in specific [35S]GTPγS binding) was achieved with the endogenous agonist dopamine. The number of dopamine-activated G proteins in Chinese hamster ovary-D4.4 membranes was determined through [35S]GTPγS isotopic dilution saturation binding, yielding a Bmax value of 2.29 pmol/mg. This compared with a D4.4 receptor Bmax value of 1.40 pmol/mg determined by [3H]spiperone saturation binding, indicating that 1 or

2 G proteins were activated per D4.4 receptor and that there were few or no "spare receptors" in this cell line. Under these conditions, the efficacy for stimulation of [35S]GTPyS binding at D4.4 receptors of 12 dopaminergic agonists was determined Several antiparkinsonian drugs, including ropinirole, quinerolane and lisuride, exhibited agonist activity at D4.4 receptors (Emax = 74.3%, 72.4% and 32.2%, resp., compared with dopamine = 100%). The EC50 values for agonist stimulation of [35S]GTPyS binding correlated well with the inhibition consts. derived from competition binding with [3H] spiperone (r = +.99). other antiparkinsonian drugs (bromocriptine, L-DOPA and terguride) showed low affinity and/or were devoid of agonist activity at D4.4 receptors. The potency at D4.4 receptors of the novel, selective D4.4 receptor antagonist L 745,870 was determined, indicting that it has high affinity (Ki = 1.99 nM) without detectable agonist activity. Furthermore, L 745,870 completely inhibited dopamine-stimulated [35S]GTP $\gamma$ S binding with a Kb value of 1.07 nM. The action of an addnl. 20 chemical diverse dopaminergic ligands, including clozapine, ziprasidone, sertindole, olanzapine and several other "atypical" antipsychotics, in advanced development was investigated. Each of these ligands shifted the dopamine stimulation curve to the right in a parallel manner consistent with competitive antagonism at this site and yielding Kb values (32.6, 22.4, 17.2 and 26.5 nM, resp.) that agreed closely with their Ki values (38.0, 14.9, 18.5 and 26.1 nM). In contrast, raclopride and seroquel exhibited low affinity at D4.4 receptors (Ki > 1000 nM). Other compds. that showed antagonist activity at D4.4 receptors included the 5-hydroxytryptamine2A receptor antagonist fananserin (RP 62203), the sigma ligand BMY 14,802 and the D3 receptor antagonist GR 103,691. In conclusion, dopamine

D4.4 receptor activity is unlikely to be an important factor in the clin. effectiveness of antiparkinsonian drugs, although low agonist efficacy at D4.4 receptors might be associated with a lesser incidence of side effects. Furthermore, antagonist activity at D4.4 receptors is a common property of many typical and atypical antipsychotic agents.

- AN 1997:457442 HCAPLUS <<LOGINID::20071023>>
- DN 127:171462
- TI [35S]Guanosine-5'-O-(3-thio)triphosphate binding as a measure of efficacy at human recombinant dopamine D4.4 receptors: actions of antiparkinsonian and antipsychotic agents
- AU Newman-Tancredi, A.; Audinot, V.; Chaput, C.; Verriele, L.; Millan, M. J.
- CS Dep. of Psychopharmacology, Institut de Recherches Servier, Croissy-sur-Seine, 78290, Fr.
- Journal of Pharmacology and Experimental Therapeutics (1997), 282(1), 181-191
  CODEN: JPETAB; ISSN: 0022-3565
- PB Williams & Wilkins
- DT Journal
- LA English
- L10 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys
- Olanzapine (OLZ) is a novel antipsychotic agent with a high affinity for AB serotonin (5-HT2), dopamine (D1/D2/D4), muscarinic (m1-m5), adrenergic  $(\alpha 1)$ , and histamine (H1) receptors. The pharmacokinetics, excretion, and metabolism of OLZ were studied in CD-1 mice, beagles dogs, and rhesus monkeys after a single oral and/or i.v. dose of [14C]OLZ. After oral administration, OLZ was well absorbed in dogs (absolute bioavailability of 73%) and to the extent of at least 55% in monkeys and 32% in mice. The terminal elimination half-life of OLZ was relatively short in mice and monkeys, (.apprx.3 h) and long in dogs (.apprx.9 h). mice and dogs, radioactivity was predominantly eliminated in feces; but, in monkeys, the major route of elimination of radioactivity was urine. Dogs and monkeys excreted in urine, resp., 38% and 55% of the dose over a 168-h period, whereas the fraction of the dose excreted in urine of mice over the collection period (120 h) was 32%. OLZ was subject to substantial first-pass metabolism; at the tmax, OLZ accounted for 19%, 18% and 18% of the radioactivity in mice, dogs, and monkeys, resp. The ratio of AUC OLZ to AUC radioactivity was, resp., 10%, 14%, and 4% in mice, dogs, and monkeys. The principal urinary metabolites in mice were 7-hydroxy OLZ glucuronide, 2-hydroxymethyl OLZ, and 2-carboxy OLZ accounting for .apprx.10%, 4%, and 2% of the dose. Metabolites that were present in urine in lesser amts. were 7-hydroxy OLZ, N-desmethyl OLZ, and N-desmethyl-2-hydroxymethyl OLZ. In dogs, the major metabolite accounting for .apprx.8% of the dose was 7-hydroxy-N-oxide OLZ. Other metabolites identified were 2-hydroxymethyl OLZ, 2-carboxy OLZ, N-oxide OLZ, 7-hydroxy OLZ, and its glucuronide and N-desmethyl OLZ. The major metabolite in monkey urine was N-desmethyl-2-carboxy OLZ, and accounted for .apprx.17% of the dose. In addition, N-oxide-2-hydroxymethyl OLZ, N-oxide-2-carboxy OLZ, N-desmethyl-2-hydroxymethyl, 2-carboxy OLZ, and 2-hydroxymethyl OLZ were identified in monkeys urine. Thus, in mice and dogs, OLZ was metabolized through aromatic hydroxylation, allylic oxidation, N-dealkylation, and N-oxidation reactions. In monkeys, OLZ was biotransformed mainly through double oxidation reactions involving the allylic carbon and Me piperazine nitrogen. Whereas the oxidative metabolic profile of OLZ in animals was similar to that of humans, animals were notable for not forming appreciable amts. of the principal human metabolite (i.e. 10-N-glucuronide
- AN 1997:329809 HCAPLUS <<LOGINID::20071023>>
- DN 127:60154
- TI Disposition and metabolism of olanzapine in mice, dogs, and rhesus monkeys
- AU Mattiuz, Edward; Franklin, Ronald; Gillespie, Todd; Murphy, Anthony; Bernstein, John; Chiur, Andre; Hotten, Terry; Kassahun, Kelem
- CS Dep. Drug Metabolism, Lilly Corporate Center, Eli Lilly Company,

Indianapolis, IN, 46285, USA

- SO Drug Metabolism and Disposition (1997), 25(5), 573-583 CODEN: DMDSAI; ISSN: 0090-9556
- PB Williams & Wilkins
- DT Journal
- LA English
- RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Alniditan, a new 5-hydroxytryptaminelD agonist and migraine-abortive agent: ligand-binding properties of human 5-hydroxytryptaminelD $\alpha$ , human 5-hydroxytryptaminelD $\beta$ , and calf 5-hydroxyptryptamineaD receptors investigated with [3H]5-hydroxytryptamine and [3H]alniditan
- Alniditan is a new migraine-abortive agent. It is a benzopyran derivative and AB therefore structurally unrelated to sumatriptan and other indole-derivs. and to ergoline derivs. The action of sumatriptan is thought to be mediated by 5-hydroxytryptamine (5-HT)1D-type receptors. We investigated the receptor-binding profile in vitro of almiditan compared with sumatriptan and dihydroergotamine for 28 neurotransmitter receptor subtypes, several receptors for peptides and lipid-derived factors, ion channel-binding sites, and monoamine transporters. Alniditan revealed nanomolar affinity for calf substantia nigra 5-HT1D and for cloned  $h5-HT1D\alpha$ ,  $h-HT1D\beta$ , and h5-HT1A receptors (Ki = 0.8, 0.4, 1.1, and 3.8 nM, resp.). Almiditan was more potent than sumatriptan at 5-HT1D-type and 5-HT1A receptors. Almiditan showed moderate-to-low or no affinity for other investigated receptors; sumatriptan showed addnl. binding to 5-HT1F receptors. Dihydroergotamine had a much broader profile with high affinity for several 5-HT, adrenergic and dopaminergic receptors in signal transduction assays using cells expressing recombinant  $h5-HT1D\alpha$ ,  $h5-HT1D\beta$ , or h5-HT1A receptors, alniditan (like 5-HT) was a full agonist for inhibition of stimulated adenylyl cyclase (IC50 = 1.1, 1.3, and 74 nM, resp., for almiditan). Therefore, in functional assays, the potency of almiditan was much higher at 5-HT1D receptors than at 5-HT1A receptors. We further compared the properties of [3H]alniditan, as a new radioligand for 5-HT1D-type receptors, with those of [3H]5-HT in membrane prepns. of calf substantia nigra, C6 glioma cells expressing h5-HT1D $\alpha$ , and L929 cells expressing h5-HT1D $\beta$  receptors. [3H] Alniditan revealed very rapid association and dissociation binding kinetics and showed slightly higher affinity (Kd = 1-2 nM) than [3H]5-HT. We investigated 25 compds. for inhibition of [3H]alniditan and [3H]5-HT binding in the three membrane prepns.; Ki values of the radioligands were largely similar, although some subtle differences appeared. Most compds. did not differentiate between 5-HT1D $\alpha$  and 5-HT1D $\beta$  receptors, except methylsergide, ritanserin, ocaperidone, risperidone, and ketanserin, which showed 10-60-fold higher affinity for the  $5-HT1D\alpha$

receptor. The Ki values of the compds. obtained with 5-HT1D receptors in

- AN 1997:7381 HCAPLUS <<LOGINID::20071023>>
- DN 126:99256
- TI Alniditan, a new 5-hydroxytryptaminelD agonist and migraine-abortive agent: ligand-binding properties of human 5-hydroxytryptaminelDα, human 5-hydroxytryptaminelDβ, and calf 5-hydroxyptryptamineaD receptors investigated with [3H]5-hydroxytryptamine and [3H]alniditan

calf substantia nigra indicated that these receptors are of the  $5-HT1D\beta$ -type. We demonstrated that almiditan is a potent agonist at

underlie its cranial vasoconstrictive and antimigraine properties.

 $h5-HT1D\alpha$  and  $h5-HT1D\beta$  receptors; its properties probably

- AU Leysen, Jose E.; Gommeren, Walter; Heylen, Lieve; Luyten, Walter H. M. L.; van de Weyer, Inez; Vanhoenacker, Peter; Haegeman, Guy; Schotte, Alain; van Gompel, Paul; Wouters, Ria; Lesage, Anne S.
- CS Dep. Biochemical Pharmacology, Janssen Res. Foundation, Beerse, B-2340, Belg.
- SO Molecular Pharmacology (1996), 50(6), 1567-1580 CODEN: MOPMA3; ISSN: 0026-895X

- PB Williams & Wilkins
- DT Journal
- LA English
- L10 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Iloperidone binding to human and rat dopamine and 5-HT receptors
- Iloperidone (HP 873; 1-[4-[3-[4-(6-fluoro-1,2-benzisoxazol-3-yl)-1-AB piperidinyl]propoxy]-3-methoxyphenyl]ethanone) is a compound currently in clin. trials for the treatment of schizophrenia. Iloperidone displays affinity for dopamine D2 receptors and for 5-HT2A receptors and has a variety of in vivo activities suggestive of an atypical antipsychotic. Here we present an examination of the affinity of iloperidone to a variety of human and rat homologs of dopamine and 5-HT receptor subtypes. We employed receptor binding assays using membranes from cells stably expressing human dopamine D1, D2S, D2L, D3, D4 and D5 and 5-HT2A and 5-HT2C receptors and rat 5-HT6 and 5-HT7 receptors. Iloperidone displayed higher affinity for the dopamine D3 receptor (Ki = 7.1 nM) than for the dopamine D4 receptor (Ki = 25 nM). Iloperidone displayed high affinity for the 5-HT6 and 5-HT7 receptors (Ki = 42.7 and 21.6 nM, resp.), and was found to have higher affinity for the 5-HT2A (Ki = 5.6 nM) than for the 5-HT2C receptor (Ki = 42.8 nM). The potential implications of this receptor binding profile are discussed in comparison with data for other antipsychotic compds.
- AN 1996:750480 HCAPLUS <<LOGINID::20071023>>
- DN 126:70003
- TI Iloperidone binding to human and rat dopamine and 5-HT receptors
- AU Kongsamut, Sathapana; Roehr, Joachim E.; Cai, Jidong; Hartman, Harold B.; Weissensee, Paul; Kerman, Lisa L.; Tang, Lei; Sandrasagra, Anthony
- CS Neuroscience Research, Hoechst Marion Roussel, Inc., Route 202-206, P.O. Box 6800, Bridgewater, NJ, 08807-0800, USA
- SO European Journal of Pharmacology (1996), 317(2/3), 417-423 CODEN: EJPHAZ; ISSN: 0014-2999
- PB Elsevier
- DT Journal
- LA English
- L10 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Effects of typical and atypical antipsychotic drugs on freezing behavior induced by conditioned fear
- AB Atypical antipsychotic drugs (atypical APDs), such as clozapine, ORG 5222, and olanzapine, have been suggested to possess anxiolytic activity in the conflict test and elevated plus-maze test, while several studies have suggested that typical APDs are not anxiolytic in several models of anxiety. The effects of typical and atypical APDs on the acquisition and expression of conditioned fear-induced freezing were investigated. The drugs were administered s.c. to male Sprague-Dawley rats 30 min before foot-shock stress. Twenty-four hours after foot shock, freezing behavior of rats was observed in the shock chamber without shocks. The atypical APD clozapine (0.3-10 mg/kg) dose-dependently inhibited the acquisition of conditioned freezing. Candidates for atypical APDs, ORG 5222 (0.1-1 mg/kg), olanzapine (1-10 mg/kg), and raclopride (3-30 mg/kg), also dose-dependently reduced the acquisition of conditioned freezing. The typical APDs haloperidol (3 mg/kg), spiperone (0.1-1 mg/kg) and nemonapride (1 mg/kg) inhibited the acquisition of conditioned freezing, but their effects were reduced at higher doses. Chlorpromazine, a typical APD, produced about 50% inhibition of the acquisition of conditioned freezing only at the dose of 10 mg/kg. The ED50 values (mg/kg) for inhibiting the acquisition of conditioned freezing was correlated with the Ki values for D4 dopaminergic receptors, but not with the ki values for other monoamine and acetylcholine receptors. On the other hand, clozapine or haloperidol did not change the expression of conditioned freezing. The protective effects of clozapine and other antipsychotic drugs on the acquisition of conditioned freezing may be mediated by blockade of D4 receptors.

```
AN 1996:734646 HCAPLUS <<LOGINID::20071023>>
```

DN 126:14642

TI Effects of typical and atypical antipsychotic drugs on freezing behavior induced by conditioned fear

AU Inoue, Takeshi; Tsuchiya, Kiyoshi; Koyama, Tsukasa

CS Dep. of Phychiatry, Hokkaido Univ. Sch. of Medicine, Sapporo, 060, Japan

SO Pharmacology, Biochemistry and Behavior (1996), 55(2), 195-201 CODEN: PBBHAU; ISSN: 0091-3057

PB Elsevier

DT Journal

LA English

L10 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN TI Preparation of imidazo[1,2-a]pyridines dopamine D4 -receptor antagonist cardiovascular and CNS agents

GΙ

AB The title compds. [I; R1, R2 = H, halogen, alkyl, cycloalkyl, CN,
 (un)substituted CONH2, etc.; R3 = H, halogen, CN, OH, alkyl, CHO, etc.;
 R4-R7 = H, alkyl, cycloalkyl, cycloalkyl, (un)substituted aryl, etc.;
 R8-R10 = H, halogen, alkyl, cycloalkyl, CN, (un)substituted CONH2,
 (un)substituted NH2, etc.; W = N, CH; X = direct bond, NR4; Y = Ph, 2-,
 3-, 4-pyridyl, pyrimidinyl, pyrazinyl, etc.] [e.g., 6-chloro-2-[[4-(4-methoxyphenyl)-1-piperazinyl]methyl]imidazo[1,2-a]pyridine; m.p.
 111-112°], which are dopamine D4-receptor
 antagonists (e.g., I demonstrate a ki for displacement of 3H-spiperone
 from human dopamine D4 receptors of <2.5 μM),
 useful as antipsychotic (no data) and cardiovascular (no data) agents, are
 prepared</pre>

AN 1996:628533 HCAPLUS <<LOGINID::20071023>>

DN 125:275875

TI Preparation of imidazo[1,2-a]pyridines dopamine D4 -receptor antagonist cardiovascular and CNS agents

IN Tenbrink, Ruth E.

PA Pharmacia and Upjohn Company, USA

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

T. Tata	C111 .	_																		
	PATENT NO.						KIND I		DATE			APPLICATION NO.					DATE			
PI	WO 9625414					A1 19960822			WO 1996-US1114						19960212 <					
		W:	AL,	AM,	AT,	ΑU,	ΑZ,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CZ,	DE,	DK,	EE,		
			ES,	FI,	GB,	GE,	HU,	IS,	JP,	KE,	KG,	KΡ,	KR,	ΚZ,	LK,	LR,	LT,	LU,		
			LV,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,		
			SI,	SK																
		RW:	KE,	LS,	MW,	SD,	SZ,	ŪĠ,	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IE,		
			ΙT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	MR,		
			NE,	SN,	TD															
	AU 9648595					A 19960904				1	AU 1996-48595					19960212 <				
	EP 809642					A1		1997	1203	]	EP 1996-904507					19960212 <				

```
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV
                                            JP 1996-524966
                                                                   19960212 <--
     JP 11500123
                          Т
                                19990106
     US 5912246
                                            US 1997-894179
                                                                   19970814 <--
                          Α
                                19990615
     US 6013654
                                            US 1998-222560
                                                                   19981230 <---
                                20000111
                          Α
PRAI US 1995-388682
                          A2
                                19950215
                                          <--
                          W
     WO 1996-US1114
                                19960212
                                          <--
     US 1997-894179
                          A3
                                19970814 <--
OS
     MARPAT 125:275875
```

L10 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Radioreceptor binding profile of the atypical antipsychotic olanzapine
AB The affinities of olanzapine, clozapine, haloperidol, and four potential
antipsychotics were compared on binding to the neuronal receptors of a number
of neurotransmitters. In both rat tissues and cell lines transfected with
human receptors olanzapine had high affinity for dopamine D1,
D2, D4, serotonin (5HT)2A, 5HT2C, 5HT3, α1-adrenergic,
histamine H1, and five muscarinic receptor subtypes. Olanzapine had lower
affinity for α2-adrenergic receptors and relatively low affinity for
5HT1 subtypes, GABAA, β-adrenergic receptors, and benzodiazepine
binding sites. The receptor binding affinities for olanzapine was quite
similar in tissues from rat and human brain. The binding profile of

binding sites. The receptor binding affinities for olanzapine was quite similar in tissues from rat and human brain. The binding profile of olanzapine was comparable to the atypical antipsychotic clozapine, while the binding profiles for haloperidol, risperidone, remoxipride, Org 5222, and seroquel were substantially different from that of clozapine. The receptor binding profile of olanzapine is consistent with the antidopaminergic, antiserotonergic, and antimuscarinic activity observed in animal models and predicts atypical antipsychotic activity in man.

AN 1996:138439 HCAPLUS <<LOGINID::20071023>>

DN 124:250583

TI Radioreceptor binding profile of the atypical antipsychotic olanzapine

AU Bymaster, Frank P.; Calligaro, David O.; Falcone, Julie F.; Marsh, Richard D.; Moore, Nicholas A.; Tye, Nicholas C.; Seeman, Philip; Wong, David T.

CS Lilly Research Laboratories, Lilly Corporate Center, Indianapolis, IN, 46285, USA

SO Neuropsychopharmacology (1996), 14(2), 87-96 CODEN: NEROEW; ISSN: 0893-133X

PB Elsevier

DT Journal

LA English

L10 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN

TI D4 dopamine receptor binding affinity does not distinguish between typical and atypical antipsychotic drugs

The affinities of 13 atypical and 12 typical antipsychotic drugs for the cloned rat D4 dopamine receptor and the D4/D2 ratios were examined Of the atypical antipsychotic drugs tested, only clozapine, risperidone, olanzapine, zotepine and tiospirone had affinities less than 20 nM. In fact, many atypical antipsychotic drugs had relatively low affinities for the cloned rat D4 receptor, with Ki values greater than 100 nM (Seroquel, fluperlapine, tenilapine, FG5803 and melperone). Addnl., several typical antipsychotic drugs had high affinities for the cloned rat D4 receptor, with Kis less than 20 nM (loxapine, chlorpromazine, fluphenazine, mesoridazine, thioridazine and trifluoroperazine). The ratios of D2/D4 affinities did not differentiate between these two types of antipsychotic drugs. Thus, D4 dopamine receptor affinity, used as a single measure, does not distinguish between the group of typical and atypical antipsychotic drugs analyzed.

AN 1995:809376 HCAPLUS <<LOGINID::20071023>>

DN 123:246661

TI D4 dopamine receptor binding affinity does not distinguish between typical and atypical antipsychotic drugs

AU Roth, B. L.; Tandra, S.; Burgess, L. H.; Sibley, D. R.; Meltzer, H. Y.

CS Sch. Med., Case Western Reserve Univ., Cleveland, OH, 44106-4935, USA

- SO Psychopharmacology (Berlin) (1995), 120(3), 365-8 CODEN: PSCHDL; ISSN: 0033-3158
- PB Springer
- DT Journal
- LA English
- L10 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Does the dopamine receptor subtype selectivity of antipsychotic agents provide useful leads for the development of novel therapeutic agents?
- AB Antipsychotic agents share the ability to antagonize dopamine (DA) receptors, and correlation studies have indicated that the clin. efficacy of neuroleptic agents may be coupled to their affinity for D2 receptors. More recently, a family of DA D2-like receptors has been identified. These receptors include the D2A, D2B, D3 and D4 receptors. On the basis of in vitro receptor-binding studies, it has been suggested that the atypical profile of clozapine might be related to a selective effect on the D4 receptor subtype. We have studied the receptor-binding profiles of a series of antipsychotic agents and evaluated some of the compds. in behavioral assays in the rat. Most of the antipsychotic agents lack selectivity for DA-receptors as well as selectivity for the various DA-receptor subtypes. Because of this lack of selectivity, it is impossible to draw firm conclusions about the role of any particular receptor in the clin. profile of the neuroleptic agents. Furthermore, the pharmacol. of potential human metabolites has to be taken into account in a proper anal. of the clin. profile. Consequently, most speculations on the key-target of clin. interesting antipsychotics (including clozapine) may be of little practical value. Clin. studies with receptor (subtype)-selective agents will be more informative.
- AN 1995:560076 HCAPLUS <<LOGINID::20071023>>
- DN 122:306430
- TI Does the dopamine receptor subtype selectivity of antipsychotic agents provide useful leads for the development of novel therapeutic agents?
- AU Hacksell, Uli; Jackson, David M.; Mohell, Nina
- CS Astra Arcus AB, Preclinical R and D, Soedertaelje, S-151 85, Swed.
- SO Pharmacology & Toxicology (Copenhagen) (1995), 76(5), 320-4 CODEN: PHTOEH; ISSN: 0901-9928
- PB Munksgaard
- DT Journal
- LA English
- L10 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Biphasic displacement of [3H]YM-09151-2 binding in the rat brain by thioridazine, risperidone and clozapine, but not by other antipsychotics
- The radioligand [3H]YM-09151-2 ((±)-cis-N-(1-benzyl-2-methylpyrrolidin-AB 3-yl)-5-chloro-2-methoxy-4-methylamino benzamide) was used to study the binding of various antipsychotic agents. Saturation expts. showed that [3H] YM-09151-2 labeled a single population of binding sites in both the olfactory tubercle and the striatum (dissociation consts. (KD): 36  $\pm$  3 pM and 26  $\pm$  2 pM, resp.). The total number of binding sites (Bmax) was greater in the striatum than in the olfactory tubercle (18.1  $\pm$  1.8 fmol/mg tissue and  $5.3 \pm 0.9$  fmol/mg tissue resp.). Risperidone and thioridazine displaced [3H] YM-09151-2 in a biphasic manner in both brain regions, and clozapine also produced biphasic displacement curves in the olfactory tubercle but not in the striatum. All other dopamine D2 receptor antagonists tested displaced [3H] YM-09151-2 in a monophasic manner in both brain regions, in agreement with previously published data. Biphasic displacement did not appear to result from interactions with either the dopamine D3, dopamine D4, 5-HT2,
  - 5-HT1C or the 5-HT1A receptor binding sites. It is suggested that thioridazine, risperidone and clozapine might discriminate between different affinity states and/or subtypes of the dopamine D2 receptor which may be different from the recently identified D2short and D2long receptors.
- AN 1993:531414 HCAPLUS <<LOGINID::20071023>>

```
119:131414
DN
     Biphasic displacement of [3H]YM-09151-2 binding in the rat brain by
TI
     thioridazine, risperidone and clozapine, but not by other antipsychotics
     Assie, Marie Bernadette; Sleight, Andrew J.; Koek, Wouter
ΑU
     Neurobiol. Div. II, Cent. Rech. Pierre Fabre, Castres, 81100, Fr.
CS
     European Journal of Pharmacology (1993), 237(2-3), 183-9
     CODEN: EJPHAZ; ISSN: 0014-2999
DT
     Journal
     English
LA
=> d his
     (FILE 'HOME' ENTERED AT 14:46:00 ON 23 OCT 2007)
     FILE 'REGISTRY' ENTERED AT 14:46:08 ON 23 OCT 2007
L1
              1 S RISPERIDONE/CN
L2
              1 S QUETIAPINE/CN
L3
              1 S OLANZAPINE/CN
              1 S L3
L4
              1 S ZIPRASIDONE/CN
L5
L6
              1 S ARIPIPRAZOLE/CN
     FILE 'STNGUIDE' ENTERED AT 14:47:23 ON 23 OCT 2007
     FILE 'HCAPLUS' ENTERED AT 14:48:40 ON 23 OCT 2007
L7
           4414 S L1-L6
           1434 S DOPAMINE (2A) D4
L8
L9
             65 S L7 AND L8
L10
             24 S L9 AND (PY<2003 OR AY<2003 OR PRY<2003)
     FILE 'STNGUIDE' ENTERED AT 14:48:48 ON 23 OCT 2007
     FILE 'HCAPLUS' ENTERED AT 14:48:57 ON 23 OCT 2007
     FILE 'STNGUIDE' ENTERED AT 14:48:58 ON 23 OCT 2007
     FILE 'HCAPLUS' ENTERED AT 14:49:09 ON 23 OCT 2007
     FILE 'STNGUIDE' ENTERED AT 14:49:11 ON 23 OCT 2007
=> log hold
COST IN U.S. DOLLARS
                                                  SINCE FILE
                                                                  TOTAL
                                                       ENTRY
                                                               SESSION
                                                        0.06
FULL ESTIMATED COST
                                                                124.74
DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS)
                                                  SINCE FILE
                                                                  TOTAL
                                                       ENTRY
                                                                SESSION
```

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 14:49:23 ON 23 OCT 2007

0.00

-18.72

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEXO1623

CA SUBSCRIBER PRICE

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \* \*

SESSION RESUMED IN FILE 'STNGUIDE' AT 15:04:19 ON 23 OCT 2007 FILE 'STNGUIDE' ENTERED AT 15:04:19 ON 23 OCT 2007 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL SESSION
FULL ESTIMATED COST	ENTRY 0.06	124.74
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY 0.00	SESSION -18.72
=> file hcaplus COST IN U.S. DOLLARS	SINCE FILE	TOTAL
FULL ESTIMATED COST	ENTRY 0.12	SESSION 124.80
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-18.72

FILE 'HCAPLUS' ENTERED AT 15:05:23 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 23 Oct 2007 VOL 147 ISS 18 FILE LAST UPDATED: 22 Oct 2007 (20071022/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 16 and 18

556. L6

L11 17 L6 AND L8

=> s 12 and 18

925 L2

L12 17 L2 AND L8

=> s 112 and (PY<2003 or AY<2003 or PRY<2003)

22908173 PY<2003

4465709 AY<2003

3944515 PRY<2003

L13 4 L12 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> s 113 and (PY<2003 or AY<2003 or PRY<2003)

22908173 PY<2003 4465709 AY<2003 3944515 PRY<2003

L14 4 L13 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file stnguide

SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION FULL ESTIMATED COST 2.60 127.40 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -18.72

FILE 'STNGUIDE' ENTERED AT 15:05:31 ON 23 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d l13 1-4 ti abs bib
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L13 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Schizophrenia: genesis, receptorology and current therapeutics AB A review. Schizophrenia is a debilitating mental disease affecting approx. 1% of the population worldwide. Since the discovery of the first modern treatment for schizophrenia, chlorpromazine, in 1952 there have been many new structures investigated, only a small fraction of which have resulted in clin. useful drugs. Of these, haloperidol may be regarded as the drug for first line treatment. Since then, clozapine has emerged as the benchmark therapeutic ameliorating pos. and neg. symptoms and devoid of movement disorders, with its greatest feature being improvement of treatment-resistant patients. However, a major, potential lethal side-effect of clozapine is the induction of agranulocytosis, a blood disorder with unknown mechanism that results in lowered white-blood cell counts and consequent susceptibility to infections. In the 50 yr of antipsychotic drug development, several novel theories have evolved that focus on receptor sub-types (serotonin 5-HT2A, dopamine D2 and D4) and the degree to which they need to be selectively attenuated by the drugs. Also of significance is the location of these receptors in the brain in relation to the disease state, the myriad of side-effects associated with antipsychotics and physicochem. properties of antipsychotic mols. relative to models of the drugs and the GPCR receptors involved. The techniques for investigation have shown increasing sophistication and refinement over this period, involving cloned receptors and PET scanning for determination of receptor location, d. and binding, and rate consts. at receptors. Knowledge of receptor structure, although in its infancy since no membrane bound CNS-receptor has yet been crystallized, is likely to benefit substantially with advances in computer-aided modeling. Overall, these new techniques have resulted in a number of novel antipsychotics such as risperidone, sertindole, olanzapine, seroquel, zotepine and ziprasidone, whose design, synthesis and testing has benefited enormously from the accumulated knowledge base of the past 50 yr. In this review, we will provide a comprehensive update of the theories of action and clin. profiles of the latest drugs listed. The following appraisal of the literature will provide the practising medicinal chemist interested in this critical area of research with sufficient insight and understanding, to embark on productive investigations into the design and development of new therapeutic agents devoid of clin. limiting side-effects.

- AN 2002:275553 HCAPLUS <<LOGINID::20071023>>
- DN 137:163110
- TI Schizophrenia: genesis, receptorology and current therapeutics
- AU Capuano, B.; Crosby, I. T.; Lloyd, E. J.
- CS Department of Medicinal Chemistry, Victorian College of Pharmacy, Monash University, Parkville, 3052, Australia
- SO Current Medicinal Chemistry (2002), 9(5), 521-548 CODEN: CMCHE7; ISSN: 0929-8673
- PB Bentham Science Publishers
- DT Journal; General Review
- LA English
- RE.CNT 286 THERE ARE 286 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L13 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- AB Ziprasidone is a novel antipsychotic agent with a unique combination of pharmacol. activities at human receptors. Ziprasidone has high affinity for human 5-HT receptors and for human dopamine D2 receptors. Ziprasidone is a 5-HT1A receptor agonist and an antagonist at 5-HT2A, 5-HT2C and 5-HT1B/ID receptors. Addnl., ziprasidone inhibits neuronal uptake of 5-HT and norepinephrine comparable to the antidepressant imipramine. This unique pharmacol. profile of ziprasidone may be related to its clin. effectiveness as a treatment for the pos., neg. and affective symptoms of schizophrenia with a low propensity for extrapyramidal side effects, cognitive deficits and weight gain.
- AN 2001:609740 HCAPLUS <<LOGINID::20071023>>
- DN 136:477
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- AU Schmidt, A. W.; Lebel, L. A.; Howard, H. R.; Zorn, S. H.
- CS Groton Laboratories, CNS Discovery, Pfizer Global Research and Development, Groton, CT, 06340-1596, USA
- SO European Journal of Pharmacology (2001), 425(3), 197-201 CODEN: EJPHAZ; ISSN: 0014-2999
- PB Elsevier Science B.V.
- DT Journal
- LA English
- RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L13 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Long-term effects of olanzapine, risperidone, and quetiapine on dopamine receptor types in regions of rat brain: implications for antipsychotic drug treatment
- AB Changes in members of the dopamine (DA) D1-like (D1, D5) and D2-like (D2, D3, D4) receptor families in rat forebrain regions were compared by quant. in vitro receptor autoradiog. after prolonged treatment (28 days) with the atypical antipsychotics olanzapine, risperidone, and quetiapine. Olanzapine and risperidone, but not quetiapine, significantly increased D2 binding in medial prefrontal cortex (MPC; 67% and 34%), caudate-putamen (CPu; average 42%, 25%), nucleus accumbens (NAc; 37%, 28%), and hippocampus (HIP; 53%, 30%). Olanzapine and risperidone, but not quetiapine, produced even greater up-regulation of D4 receptors in CPu (61%, 37%), NAc (65%, 32%), and HIP (61%, 37%). D1-like and D3 receptors in all regions were unaltered by any treatment, suggesting their minimal role in mediating actions of these antipsychotics. The findings support the hypothesis that antipsychotic effects of olanzapine and risperidone are partly mediated by D2 receptors in MPC, NAc, or HIP, and perhaps D4 receptors in CPu, NAc, or HIP, but not in cerebral cortex. Selective up-regulation of D2 receptors by olanzapine and risperidone in CPu may reflect their ability to induce some extra-pyramidal effects. Inability of quetiapine to alter DA receptors suggests that non-dopaminergic mechanisms contribute to its

antipsychotic effects.

- AN 2001:321641 HCAPLUS <<LOGINID::20071023>>
- DN 135:132309
- TI Long-term effects of olanzapine, risperidone, and quetiapine on dopamine receptor types in regions of rat brain: implications for antipsychotic drug treatment
- AU Tarazi, Frank I.; Zhang, Kehong; Baldessarini, Ross J.
- CS Mailman Research Center, McLean Division of Massachusetts General Hospital, Belmont, MA, USA
- SO Journal of Pharmacology and Experimental Therapeutics (2001), 297(2), 711-717
  CODEN: JPETAB; ISSN: 0022-3565
- PB American Society for Pharmacology and Experimental Therapeutics
- DT Journal
- LA English
- RE.CNT 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L13 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 receptors in agonist-stimulated [35S]GTPyS binding assays
- Dopamine receptor agonists and antagonists have been extensively AΒ characterized in radioligand binding assays; only a limited number of labs. have characterized them using a functional assay at multiple receptor subtypes. Expts. were designed to assess four agonists and seven antagonists at three cloned human dopamine receptors using agonist-stimulated [35S]GTPyS binding assays in membranes to quantify the initial cellular event following ligand/receptor interaction. In this model there is constitutive G protein activity (agonist-independent [35S]GTPγS binding) and potentially constitutive dopamine receptor activity. Thus, discrimination between silent antagonists, partial agonists and inverse agonists is theor. possible. It was anticipated that distinctions could be made regarding efficacy of the seven receptor antagonists to provide insight regarding the therapeutic use of antipsychotic drugs. In membranes prepared from CHO cells transfected to express high densities of human D2short, D4.2 or D4.7 receptors, the dopamine receptor agonists apomorphine, pergolide, quinelorane and quinpirole produced concentration-dependent increases in agonist-stimulated [35S]GTPyS binding. At the hD2short receptor, pergolide and apomorphine were essentially equipotent and more potent than quinelorane and quinpirole; all four agonists displayed similar efficacy at this receptor. At the hD4.2 and the hD4.7 receptors apomorphine was the most potent and pergolide the least efficacious of the four drugs. The ability (both potency and efficacy) of clozapine, haloperidol, olanzapine, quetiapine, risperidone, spiperone and ziprasidone to block apomorphine-stimulated [35S]GTPyS binding and alter basal [35S]GTPyS binding was also assessed. All of the antagonists inhibited apomorphine-stimulated [35S]GTPyS binding with potencies (Kb values) similar to and in rank order consistent with their affinities reported in the literature using radioligand binding assays. Addnl., none of the antagonists altered basal, agonist-independent [35S]GTPyS binding, thus they behaved as pure, silent antagonists at D2short, D4.2 and D4.7 receptors under our conditions. In summary, the data suggest that therapeutic distinctions between typical and atypical antipsychotic drugs cannot be made based on their function at D2short, D4.2 and D4.7 subtypes of dopamine receptors.
- AN 2000:295079 HCAPLUS <<LOGINID::20071023>>
- DN 133:114944
- TI Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 receptors in agonist-stimulated [35S]GTPyS binding assays
- AU Gilliland, S. L.; Alper, R. H.
- CS Toxicology and Therapeutics, Department of Pharmacology, University of Kansas Medical Center, Kansas City, KS, 66160-7417, USA
- SO Naunyn-Schmiedeberg's Archives of Pharmacology (2000), 361(5),

498-504

CODEN: NSAPCC; ISSN: 0028-1298

PB Springer-Verlag

DT Journal LA English

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 114 1-4 ti YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- L14 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Schizophrenia: genesis, receptorology and current therapeutics
- L14 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Ziprasidone: a novel antipsychotic agent with a unique human receptor binding profile
- L14 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Long-term effects of olanzapine, risperidone, and quetiapine on dopamine receptor types in regions of rat brain: implications for antipsychotic drug treatment
- L14 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Characterization of dopaminergic compounds at hD2short, hD4.2 and hD4.7 receptors in agonist-stimulated [35S]GTPyS binding assays

=> file registry
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'REGISTRY' ENTERED AT 15:22:48 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 23 OCT 2007 HIGHEST RN 951288-30-5 DICTIONARY FILE UPDATES: 23 OCT 2007 HIGHEST RN 951288-30-5

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> file stnguide
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 5.40 5.61

FILE 'STNGUIDE' ENTERED AT 15:23:03 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> file hcaplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.24 5.85

FULL ESTIMATED COST

FILE 'HCAPLUS' ENTERED AT 15:25:14 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is

```
strictly prohibited.
```

FILE COVERS 1907 - 24 Oct 2007 VOL 147 ISS 18 FILE LAST UPDATED: 23 Oct 2007 (20071023/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l1/thu

557 L1

946710 THU/RL

 $L_2$ 

L5

483 L1/THU

(L1 (L) THU/RL)

=> s depression or depressive or depressed

84712 DEPRESSION

9078 DEPRESSIVE

66744 DEPRESSED

144013 DEPRESSION OR DEPRESSIVE OR DEPRESSED L3

=> s smoking or nicotine or tobacco

34188 SMOKING

30279 NICOTINE

82974 TOBACCO

L4 115763 SMOKING OR NICOTINE OR TOBACCO

=> s antipsychotic or neuroleptic or ziprasidone or aripiprazole or olanzapine or claozapine or risperidone

10374 ANTIPSYCHOTIC

7547 NEUROLEPTIC

812 ZIPRASIDONE

601 ARIPIPRAZOLE

2490 OLANZAPINE

0 CLAOZAPINE 2766 RISPERIDONE

18454 ANTIPSYCHOTIC OR NEUROLEPTIC OR ZIPRASIDONE OR ARIPIPRAZOLE OR OLANZAPINE OR CLAOZAPINE OR RISPERIDONE

=> s antidepressant or fluoxetine or fluvoxamine or paroxetine or sertaline or SSRI or (selective serotonin reuptake)

21912 ANTIDEPRESSANT

5986 FLUOXETINE

1912 FLUVOXAMINE

3318 PAROXETINE

6 SERTALINE

1755 SSRI

440119 SELECTIVE

72989 SEROTONIN

10221 REUPTAKE

3004 SELECTIVE SEROTONIN REUPTAKE

(SELECTIVE (W) SEROTONIN (W) REUPTAKE)

28127 ANTIDEPRESSANT OR FLUOXETINE OR FLUVOXAMINE OR PAROXETINE OR L6 SERTALINE OR SSRI OR (SELECTIVE SEROTONIN REUPTAKE)

=> s 12 and 13

78 L2 AND L3 L7

=> s 14 and 15 and 16

L8 82 L4 AND L5 AND L6

=> file stnguide

COST IN U.S. DOLLARS

SINCE FILE TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

2.60 8.45

FILE 'STNGUIDE' ENTERED AT 15:25:22 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> file hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL SESSION

FULL ESTIMATED COST

ENTRY 0.06

8.51

FILE 'HCAPLUS' ENTERED AT 15:25:54 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 24 Oct 2007 VOL 147 ISS 18 FILE LAST UPDATED: 23 Oct 2007 (20071023/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 17 and (PY<2003 or AY<2003 or PRY<2003)

22908174 PY<2003

4465717 AY<2003

3944520 PRY<2003

L9 14 L7 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> s 18 and (PY<2003 or AY<2003 or PRY<2003)

22908174 PY<2003

4465717 AY<2003

3944520 PRY<2003

34 L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> file stnguide

L10

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST ENTRY SESSION 2.60 11.11

FILE 'STNGUIDE' ENTERED AT 15:26:00 ON 24 OCT 2007 USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Oct 19, 2007 (20071019/UP).

=> d 19 1-14 ti YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- L9 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods and compositions using cyclooxygenase 2 (COX-2) inhibitors for the treatment of psychiatric disorders, and combination therapies
- L9 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Adenosine A2a receptor antagonists for the treatment of extrapyramidal syndrome and other movement disorders
- L9 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Carbostyril derivatives and serotonin reuptake inhibitors for treatment of mood disorders
- L9 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Stereoisomers of p-hydroxy-milnacipran, and therapeutic use
- L9 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Antipsychotic combination therapies and compositions of an alpha-2 adrenergic receptor antagonist and an atypical antipsychotic neuroleptic
- L9 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Combination therapy for depression, prevention of suicide, and various medical and psychiatric conditions
- L9 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods and compositions using a cyclooxygenase 2 (COX-2) inhibitor for the treatment of psychiatric disorders
- L9 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of aripiprazole with low hygroscopicity
- L9 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Use of cyclooxygenase 2 (COX-2) inhibitors for the treatment of schizophrenia, delusional disorders, affective disorders, autism, or tic disorders
- L9 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Aripiprazole
- L9 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Carbostyril derivative 5-HTla receptor subtype agonist for treatment of central nervous system disorders
- L9 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Carbostyril derivative 5-HTla receptor agonists for treatment of central nervous system disorders
- L9 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Pharmaceuticals containing a combination of norepinephrine reuptake inhibitors and neuroleptics

- ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN L9
- The antipsychotic aripiprazole is a potent, partial agonist at the human ΤI 5-HT1A receptor

=> d 19 3 4 5 6 7 8 10 12 12 14 ti abs bib YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN L9
- Carbostyril derivatives and serotonin reuptake inhibitors for treatment of TI mood disorders
- AB The pharmaceutical composition of the present invention comprises (1) a carbostyril derivative and (2) a serotonin reuptake inhibitor in a pharmaceutically acceptable carrier. The carbostyril derivative may be aripiprazole or a metabolite thereof, which is a dopamine-serotonin system stabilizer. The serotonin reuptake inhibitor may be fluoxetine, duloxetine, venlafaxine, milnacipran, citalopram, fluvoxamine, paroxetine, sertraline or escitalopram. The pharmaceutical composition of the present invention is useful for treating patients with mood disorders, particularly depression or major depressive disorder. For example, a tablet formulation contained aripiprazole anhydride crystals B 5 mg, venlafaxine 75 mg, starch 131 mg, magnesium stearate 4 mg, and lactose 60 mg.
- ΑN 2004:589419 HCAPLUS <<LOGINID::20071024>>
- DN 141:128865
- Carbostyril derivatives and serotonin reuptake inhibitors for treatment of TI mood disorders
- Kikuchi, Tetsuro; Iwamoto, Taro; Hirose, Tsuyoshi IN
- Otsuka Pharmaceutical Co., Ltd., Japan PA
- PCT Int. Appl., 92 pp.
- CODEN: PIXXD2
- DT Patent
- English LA

FAN.CNT 1 PATENT NO.						KIND DATE			APPLICATION NO.						DATE					
ΡI	WO 2004060374					A1 20040722			•	WO 2003-JP16724						20031225 <				
													BR,							
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,		
			GE,	GH,	GM,	HR,	HU,	ID,	ΙĹ,	IN,	IS,	KE,	KG,	KR,	ΚZ,	LC,	LK,	LR,		
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	ΝZ,	OM,		
			PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	TJ,	TM,	TN,		
			TR,	TT,	TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW					
		RW:				•		•	•		•		TZ,	•	•	•	•	•		
			•	•	•	•		•	•		•	,	CH,	•	•	•	•	•		
				-									ΝL,	-	-	-				
				BF,														TD, TG		
									CA 2003-2511619											
		2 1575590							AU 2003-295235											
	EP																			
		R:		•	•	•	•	•	•	•	•	•	•	•	•	•		PT,		
													BG,							
									BR 2003-17771											
		CN 1726039								CN 2003-80106103 EP 2006-17539										
	ЕP																			
		R:	•	•	•	•	•	•	•	•	•	•	FI,	•	•	GR,	HU,	IE,		
	CN	19899											TR,			2	በበ፯፣	225 /		
						Δ		2007	0704	0704 CN 2007-10001620 0928 NZ 2003-540054						20031225 <				
	NZ 540054					Δ		2007	0805		JP 2003-340034 JP 2003-433429						20031225 <			
	O L	20042	,,,,			-			5005		GI 2003-433427						20031220 (			

```
NO 2005002359
                                 20050718
                                             NO 2005-2359
                                                                    20050512 <--
                          Α
                         20060830
A 20050818
A 20060630
A1 20060713
A 20021227
P 2003051
     ZA 2005003873
                                             ZA 2005-3873
                                                                    20050513 <--
                                             MX 2005-PA6857
                                                                   20050622 <--
     MX 2005PA06857
                                                                   20050624 <--
                                             IN 2005-KN1229
     IN 2005KN01229
     US 2006154938
                                             US 2005-540577
                                                                   20051216 <--
PRAI JP 2002-379003
                                          <--
     US 2003-470481P
     CN 2003-80106103
                          A3
                                20031225
     EP 2003-786308
                          A3
                                 20031225
     WO 2003-JP16724
                          W
                                 20031225
     ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
L9
     Stereoisomers of p-hydroxy-milnacipran, and therapeutic use
     The invention relates generally to the enantiomers of p-hydroxymilnacipran
AB
     or congeners thereof. Biol. assays revealed that racemic
     p-hydroxymilnacipran is approx. equipotent in inhibiting serotonin and
     norepinephrine uptake (IC50 = 28.6 nM for norepinephrine, IC50 = 21.7 nM
     for serotonin). Interestingly, (+)-p-hydroxymilnacipran is a more potent
     inhibitor of norepinephrine uptake than serotonin uptake (IC50 = 10.3 nM
     for norepinephrine, IC50 = 22 nM for serotonin). In contrast,
     (-)-p-hydroxymilnacipran is a more potent inhibitor of serotonin uptake
     compared to norepinephrine uptake (IC50 = 88.5 nM for norepinephrine, IC50
     = 40.3 nM for serotonin). The invention also relates to salts and prodrug forms of the above compds. In certain embodiments, the compds. of the
     invention and a pharmaceutically acceptable excipient are combined to
     prepare a formulation for administration to a patient. Finally, the
     invention relates to methods of treating mammals suffering from various
     afflictions, e.g., depression, chronic pain, or fibromyalgia,
     comprising administering to a mammal in need thereof a therapeutically
     effective amount of a compound of the invention. Compound preparation is
included.
     2004:392439 HCAPLUS <<LOGINID::20071024>>
AΝ
DN
     140:400095
     Stereoisomers of p-hydroxy-milnacipran, and therapeutic use
ΤI
     Rariy, Roman V.; Heffernan, Michael; Buchwald, Stephen L.; Swager, Timothy
IN
     Collegium Pharmaceutical, Inc., USA
PA
     PCT Int. Appl., 163 pp.
     CODEN: PIXXD2
DT
     Patent
     English
FAN.CNT 6
                        KIND DATE APPLICATION NO.
                                                                   DATE
     PATENT NO.
                                            -----
                                                                   -----
     -----
                        ____
     WO 2004039320
                        A2 20040513
A3 20040624
                                          WO 2003-US33681
                                                                   20031022 <--
PΙ
     WO 2004039320
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
             TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2503381
                          A1
                                 20040513
                                          CA 2003-2503381
                                                                   20031022 <--
     AU 2003284342
                                 20040525
                                             AU 2003-284342
                                                                     20031022 <--
                         A1
                       A1
                                             US 2003-691465
                                                                     20031022 <--
     US 2004142904
                                 20040722
                         B2 20060502
A2 20050928
     US 7038085
                                          EP 2003-776524
     EP 1578719
                                                                    20031022 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
```

T

JP 2006503920

20060202

JP 2005-501895

20031022 <--

```
MX 2005PA04381
IN 2005CN01003
                           Α
                                   20060210
                                               MX 2005-PA4381
                                                                        20050422 <--
                                               IN 2005-CN1003
                           Α
                                   20070824
                                                                        20050524 <--
                                 20021025 <--
20021101 <--
PRAI US 2002-421640P
                           P
     US 2002-423062P
                           P
                                 20030205
     US 2003-445142P
                           P
     WO 2003-US33681
                            W
                                   20031022
     MARPAT 140:400095
os
     ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
L9
     Antipsychotic combination therapies and compositions of an alpha-2
TI
     adrenergic receptor antagonist and an atypical antipsychotic neuroleptic
     The invention provides novel antipsychotic therapies and compns. useful
AB
     therein and provides methods for identifying new candidate mols. for the
      treatment of psychosis based on the proportional binding affinities for
     \alpha2 adrenergic and D2 dopamine receptors.
      2004:101019 HCAPLUS <<LOGINID::20071024>>
AN
     140:157473
DN
     Antipsychotic combination therapies and compositions of an alpha-2
TI
     adrenergic receptor antagonist and an atypical antipsychotic neuroleptic
IN
     Pickar, David; Wadenberg, Marie-Louise; Svensson, Torgny
PA
     Potomac, Pharma Inc., USA
     PCT Int. Appl., 45 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                          KIND
                                   DATE APPLICATION NO.
                                                                        DATE
      -----
                          ----
                                               -----
                                                                         _____
     WO 2004011031 A1 20040205
WO 2004011031 A9 20040422
                                             WO 2003-US23440
                                                                        20030728 <--
PΤ
          W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
              LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
              PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
              TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
              KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
              FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
              BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                        A1 20040205 CA 2003-2494109 20030728 <--
      CA 2494109
     AU 2003259256
                           A1
                                   20040216
                                                AU 2003-259256
                                                                        20030728 <--
                                   20040701 US 2003-629123
20050629 EP 2003-771917
                           A1
                                                                        20030728 <--
      US 2004127489
      EP 1545618
                           A1
                                                                        20030728 <--
          R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
              IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2005538108 T
                                             JP 2004-524892
                                 20051215
                                                                        20030728 <--
US 2006281735 A1 20061214 US 2002-398718P P 20020729 <--
US 2002-398719P P 20020729 <--
US 2002-398720P P 20020729 <--
US 2002-402542P P 20020812 <--
US 2002-433781P P 20021217 <--
US 2002-433782P P 20021217 <--
US 2002-433785P P 20021217 <--
US 2002-433785P P 20021217 <--
US 2003-US23440 W 20030728
                           A1
      US 2006281735
                                   20061214
                                               US 2006-405360
                                                                         20060417 <--
     WO 2003-US23440 W
US 2005-522699 A1
                                  20050127
               THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 3
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
      ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
L9
TI
```

- TI Combination therapy for depression, prevention of suicide, and various medical and psychiatric conditions
- AB The present invention relates to a new method of treatment for persons

meeting diagnoses for major depressive disorder, or other unipolar (non-bipolar, nonpsychotic and non-treatment resistant) depression. The method comprises administering a combination of two categories of drugs, antipsychotics or dopamine system stabilizers, in combination with a newer antidepressant such as a selective serotonin reuptake inhibitor, as initial treatment or as soon as possible. The method targets the prevention of suicide, and provides other benefits including preventing disease progression development of tolerance toward the antidepressants. Another aspect of the invention relates to using the method for alleviating cognitive distortion and related functional impairment or health risks, and/or using the method for smoking cessation or nicotine withdrawal.

```
AN 2004:100942 HCAPLUS <<LOGINID::20071024>>
```

DN 140:139528

TI Combination therapy for depression, prevention of suicide, and various medical and psychiatric conditions

IN Migaly, Peter

PA USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent LA English

FAN.CNT 1

PAN.	DATENT NO					KIND DATE			APPLICATION NO.					DATE					
ΡI	WO	2004010932				A2	A2 20040205			WO 2003-US23326						20030725 <			
		2004010932																	
		W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	PH,	
			PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	ΤJ,	TM,	TN,	TR,	TT,	TZ,	
			UA,	ŪĠ,	UZ,	VC,	VN,	YU,	ZA,	ZM,	zw								
		RW:	-		-	-	-	MZ,				-							
				•		•		TM,			•	-	-	-	-			•	
			•					ΙE,		•								•	
								CM,											
	_																	725 <	
																		725 <	
																		725 <	
	EΡ																	725 <	
		R:																PT,	
				-			-	RO,											
												005-	PA29	4		2	0050	104 <	
PRAI		2002									-								
		2003																	
	WO	2003	-US2	3326		W		2003	0725										

- L9 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods and compositions using a cyclooxygenase 2 (COX-2) inhibitor for the treatment of psychiatric disorders
- AB A method for the prevention, treatment, or inhibition of a psychiatric disorder, in particular schizophrenia, is described which comprises administering a COX-2 inhibitor, or prodrug thereof, to a subject. Moreover, a method for the prevention, treatment, or inhibition of a psychiatric disorder, in particular schizophrenia or a depressive disorder, is disclosed, comprising administering to a subject a COX-2 inhibitor or prodrug thereof in combination with a neuroleptic drug or an antidepressant. Compns. and kits that are suitable for the practice of the method are also described.
- AN 2003:532347 HCAPLUS <<LOGINID::20071024>>
- DN 139:79173
- TI Methods and compositions using a cyclooxygenase 2 (COX-2) inhibitor for the treatment of psychiatric disorders

```
Muller, Norbert
IN
PΑ
    Germany
    U.S. Pat. Appl. Publ., 27 pp.
SO
    CODEN: USXXCO
DT
    Patent
LA
    English
FAN.CNT 3
                                          APPLICATION NO.
                                                                 DATE
    PATENT NO.
                       KIND
                               DATE
     -----
                        ____
                               _____
                                          ______
                                                                 _____
                                         US 2002-157969
                        A1
PΙ
    US 2003130334
                               20030710
                                                                 20020531 <--
    EP 1627639
                        A2
                               20060222
                                          EP 2005-24864
                                                                 20020531 <--
    EP 1627639
                        A3
                               20060927
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                          US 2005-320757
                        A1
                               20060727
                                                                 20051230 <--
    US 2006167074
PRAI DE 2001-10129328
                        Α
                               20010619
                                         <--
                         Ρ
    US 2002-364904P
                               20020314
                                        <--
                        Α
    DE 2001-10129320
                               20010619
                                        <--
                        A3
    EP 2002-738138
                               20020531 <--
    US 2002-157969
                        A2
                               20020531 <--
    MARPAT 139:79173
OS
    ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
L9
    Preparation of aripiprazole with low hygroscopicity
ΤI
    The present invention provides low hygroscopic forms of aripiprazole and
AΒ
    processes for the preparation which will not convert to a hydrate or lose their
    original solubility even when a pharmaceutical containing the aripiprazole
(anhydrous)
     crystals is stored for an extended period. Thus, aripiprazole hydrate was
    heated for 18 h at 100° and then for 3 h at 120° to produce
     the crystals of the anhydrous form of aripiprazole. A tablet formulation
     contained aripiprazole 5, starch 131, Mg stearate 4, and lactose 60 mg.
     2003:261676 HCAPLUS <<LOGINID::20071024>>
AN
DN
     138:276308
TI
     Preparation of aripiprazole with low hygroscopicity
     Bando, Takuji; Aoki, Satoshi; Kawasaki, Junichi; Ishigami, Makoto;
IN
     Taniguchi, Youichi; Yabuuchi, Tsuyoshi; Fujimoto, Kiyoshi; Nishioka,
     Yoshihiro; Kobayashi, Noriyuki; Fujimura, Tsutomu; Takahashi, Masanori;
     Abe, Kaoru; Nakagawa, Tomonori; Shinhama, Koichi; Utsumi, Naoto; Tominaga,
     Michiaki; Oi, Yoshihiro; Yamada, Shohei; Tomikawa, Kenji
PΑ
     Otsuka Pharmaceutical Co., Ltd., Japan
     PCT Int. Appl., 174 pp.
SO
     CODEN: PIXXD2
     Patent
DT
     English
LA
FAN.CNT 1
     PATENT NO.
                        KIND
                               DATE
                                         APPLICATION NO.
                                                                DATE
                                                               _____
                             -----
                        ----
                                         -----
     WO 2003026659
                             20030403 WO 2002-JP9858
                        A1
                                                                20020925 <--
ΡI
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT,
            LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT,
            RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG,
            US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF,
             CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     CA 2379005
                               20030325
                                          CA 2002-2379005
                        A1
                                                                 20020327 <--
                        A1
                                                                20020925 <--
     CA 2426921
                               20030403
                                          CA 2002-2426921
                     A1
A
A1
                               20030407
                                          AU 2002-334413
                                                                20020925 <--
     AU 2002334413
     BR 2002005391
                               20030729
                                          BR 2002-5391
                                                                 20020925 <--
     EP 1330249
                               20030730
                                           EP 2002-782507
                                                                 20020925 <--
```

```
20060405
    EP 1330249
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                          JP 2002-279085
                                                                20020925 <--
    JP 2003212852
                        Α
                              20030730
    JP 3760264
                        B2
                              20060329
    CN 1463191
                                          CN 2002-801754
                                                                20020925 <--
                        Α
                              20031224
    EP 1419776
                                          EP 2004-2427
                              20040519
                                                                20020925 <--
                        A2
    EP 1419776
                        A3
                              20040616
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
                                          ZA 2003-113
    ZA 2003000113
                        Α
                              20040806
                                                                20020925 <--
    AU 200234413
                        Α
                               20041104
                                          AU 2002-34413
                                                                20020925 <--
                        B2
                              20041104
    AU 2002334413
                        C2
                               20050827
                                          RU 2003-101334
                                                                20020925 <--
    RU 2259366
                        Α
                                          CN 2005-10078599
                                                                20020925 <--
    CN 1699346
                              20051123
    AT 322269
                        т
                              20060415
                                          AT 2002-782507
                                                                20020925 <--
                       Ā
                                          NZ 2002-523313
                                                                20020925 <--
    NZ 523313
                              20060526
                      A2
                                          HU 2006-141
    HU 2006000141
                              20060529
                                                                20020925 <--
                        T
                                          PT 2002-782507
    PT 1330249
                              20060630
                                                                20020925 <--
                       C2
                                          RU 2004-126636
    RU 2279429
                              20060710
                                                                20020925 <--
    CN 1817882
                       Α
                              20060816
                                          CN 2006-10006215
                                                                20020925 <--
                        Т3
                              20061116
    ES 2261750
                                          ES 2002-2782507
                                                                20020925 <--
                      A
A
                              20050311
    IN 2002KN01536
                                          IN 2002-KN1536
                                                                20021217 <--
    MX 2003PA00440
                              20031006
                                          MX 2003-PA440
                                                                20030115 <--
                       A1
                              20040325
                                          US 2003-333244
                                                               20030616 <--
    US 2004058935
                                          JP 2004-156130
                                                                20040526 <--
    JP 2004256555
                       A
                              20040916
    JP 3750023
                       B2
                              20060301
    JP 2006070045
                      A
                              20060316
                                          JP 2005-341187
                                                                20051125 <--
    US 2007202181
                       A1
                              20070830
                                          US 2007-790605
                                                               20070426 <--
    US 2007213343
                       A1
                              20070913
                                          US 2007-790603
                                                               20070426 <--
                      A1
A1
A1
A1
    US 2007212421
                              20070913
                                          US 2007-790604
                                                               20070426 <--
    US 2007213344
                              20070913
                                          US 2007-790606
                                                               20070426 <--
    US 2007203150
                               20070830
                                          US 2007-797019
                                                               20070430 <--
    US 2007203151
                              20070830
                                          US 2007-797024
                                                               20070430 <--
                       A1
                                         US 2007-797030
    US 2007203152
                              20070830
                                                               20070430 <--
PRAI JP 2001-290645
                       Α
                              20010925 <--
    JP 2001-348276
                       A
                              20011114 <--
                       Α
    CA 2002-2379005
                              20020327 <--
    CN 2002-801754
                       A3
                              20020925 <--
    EP 2002-782507
                       A3
                              20020925 <--
    JP 2002-279085
                        A3
                               20020925
                                       <--
    RU 2003-101334
                        A
                               20020925 <--
    WO 2002-JP9858
                        W
                               20020925 <--
    US 2003-333244
                        A3
                               20030616
             THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 2
```

ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN L9

ALL CITATIONS AVAILABLE IN THE RE FORMAT

B1

TIAripiprazole

Aripiprazole is a quinolinone derivative and the first of a new class of AΒ atypical antipsychotics. The drug has partial agonist activity at dopamine D2 and serotonin 5-HT1A receptors, and is also an antagonist at 5-HT2A receptors. In patients with acute relapse of schizophrenia or schizoaffective disorder, aripiprazole 15 to 30 mg/day was at least as effective as haloperidol 10 mg/day and had similar efficacy to risperidone 6 mg/day in well designed, 4-wk, placebo-controlled trials. Neg. symptoms improved earlier in the aripiprazole than the risperidone group. Efficacy of aripiprazole was observed at week 1 in several trials and was sustained throughout the study periods. Aripiprazole was superior to placebo in a 26-wk trial in patients with stable, chronic schizophrenia. In a 52-wk trial involving patients with acute relapsing disease, aripiprazole was similar to haloperidol as assessed by time to failure to maintain response and was superior in ameliorating neg. and depressive symptoms. The incidence of extrapyramidal symptoms during aripiprazole therapy was

similar to that with risperidone and placebo but lower than with haloperidol. Compared with placebo, the proportion of patients with increased plasma prolactin levels and QTc prolongation was similar in patients treated with aripiprazole 15 to 30 mg/day but was significantly increased with haloperidol and risperidone.

AN 2002:892403 HCAPLUS <<LOGINID::20071024>>

DN 139:46891

TI Aripiprazole

AU McGavin, Jane K.; Goa, Karen L.

CS Adis International Limited, Auckland, N. Z.

SO CNS Drugs (2002), 16(11), 779-786 CODEN: CNDREF; ISSN: 1172-7047

PB Adis International Ltd.

DT Journal

LA English

GΙ

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Carbostyril derivative 5-HTla receptor agonists for treatment of central nervous system disorders

$$\begin{array}{c|c} & & & \\ & N & \\ & N & \\ & &$$

 $\ensuremath{\mathsf{AB}}$   $\ensuremath{\mathsf{The}}$  invention discloses the use of a compound for the production of a medicament

for treating a patient suffering from a disorder of the central nervous system associated with 5-HTla receptor subtype, the medicament including as an active ingredient a carbostyril derivative I (C-C bond between 3- and 4-positions in the carbostyril skeleton is single or double bond), or a pharmaceutically acceptable salt or solvate thereof.

AN 2002:594663 HCAPLUS <<LOGINID::20071024>>

DN 137:150248

TI Carbostyril derivative 5-HTla receptor agonists for treatment of central nervous system disorders

PA Otsuka Pharmaceutical Co., Ltd., Japan; Otsuka Pharma Co Ltd

SO PCT Int. Appl., 31 pp. CODEN: PIXXD2

DT Patent

LA English

FAN CNT 1

L'MIA'																			
	PAT	ENT 1	NO.			KIN	)	DATE			APPL:	ICAT:	ION 1	<i>NO</i> .		D.	ATE		
							_				<b>_</b>					-			
ΡI	WO	2002	0604	23		A2		2002	8080	1	WO 2	002-	JP62	5		2	0020	129 <	: <b>-</b> -
	WO	2002	06042	23		<b>A3</b>		2003	0410										
		W:	AU,	BR,	CA,	CN,	ID,	IN,	JP,	KR,	MX,	PH,	SG						
		RW:	ΑT,	BE,	CH,	CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	ΙT,	LU,	MC,	NL,	
			PT,	SE,	TR														

	CA	2429	496			A1	2	002	8080		CA	20	02-	2429	496		2	0020	129	<
	ΑU	2002	2267	52		A1	2	002	0812		ΑU	20	02-	2267	52		2	0020	129	<
	ΕP	1355	639			A2	2	003	1029		ΕP	20	02-	7164	34		2	0020	129	<
	ΕP	1355	639			B1	2	006	0412											
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	₹,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	,
			ΙE,	FI,	CY,	TR														
	BR	2002	0062	37		Α	2	003	1223					6237			2	0020	129	<
	CN	1484	524			Α	2	004	0324		CN	20	02-	8035	51		2	0020	129	<
	JP	2004	5179	37		T	2	004	0617		JΡ	20	02-	5606	16			0020		
	ΕP	1621	198			A2	2	006	0201		EP	20	05-3	2397	1		2	0020	129	<
	ΕP	1621	198			A3	2	006	0412						•					
	ΕP	1621				В1			0523											
		R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR	₹,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	,
				FI,	CY,															
	ΤA	3228	94			T									34			0020		
	PT	1355	639			T	2	006	0630		PT	20	02-	7164	34			0020		
		1813				Α	2	006	0809		CN	20	05-	1002	2828			0020		
	ΕP	1712				A1	2	006	1018		EΡ	20	06-	1578	2			0020		
		R:					DK,	ES,	FR,	GB,	GR	₹,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	,
			•	FI,	CY,															
		2261				Т3			1116						434			0020		
		1879				Α			1220		-				4388			0020		
		3627				Т			0615					2397				0020		
		2003				A			0914					KN72				0030		
		2003		603		A			0212					PA66				0030		
		1061				A1			0804					1048				0040		
		2005				A1			0519		AU	20	05-	2017	72		2	0050	427	<
		2005				B2			0517								_			
		2007				A1			0510			20	007-	2017	01		2	0070	417	
PRAI		2001				A			0129											
	_	2002				A3			0129											
		2002			_	A3			0129											
		2005			8	A3			0129											
		2002				A3			0129											
		2005				A3			0129											
		2002				W			0129		_									
	ΑU	2005	-201	112		A3	2	005	0427											

L9 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN

TI Carbostyril derivative 5-HTla receptor agonists for treatment of central nervous system disorders

GI

$$\begin{array}{c|c} & & & \\ & N & \\ & N & \\ & & Cl & \\ & & Cl \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

 ${\tt AB}$  The invention discloses the use of a compound for the production of a medicament

for treating a patient suffering from a disorder of the central nervous system associated with 5-HTla receptor subtype, the medicament including as an active ingredient a carbostyril derivative I (C-C bond between 3- and 4-positions in the carbostyril skeleton is single or double bond), or a

ΑN DN 137:150248 Carbostyril derivative 5-HTla receptor agonists for treatment of central TI nervous system disorders Jordan, Shaun; Kikuchi, Tetsuro; Tottori, Katsura; Hirose, Tsuyoshi; IN Uwahodo, Yasufumi Otsuka Pharmaceutical Co., Ltd., Japan; Otsuka Pharma Co Ltd PA PCT Int. Appl., 31 pp. SO CODEN: PIXXD2  $\mathbf{DT}$ Patent English LΑ FAN.CNT 1 KIND DATE PATENT NO. DATE APPLICATION NO. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_\_ ----\_\_\_\_\_ WO 2002-JP626 20020129 <--WO 2002060423 A2 20020808 PT A3 20030410 WO 2002060423 W: AU, BR, CA, CN, ID, IN, JP, KR, MX, PH, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR 20020808 CA 2002-2429496 20020129 <--CA 2429496 A1 AU 2002-226752 20020129 <--AU 2002226752 A1 20020812 EP 1355639 EP 2002-716434 A2 20031029 20020129 <--EP 1355639 B1 20060412 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR 20031223 BR 2002-6237 20020129 <--BR 2002006237 Α CN 2002-803551 20020129 <--CN 1484524 Α 20040324 JP 2002-560616 JP 2004517937 Т 20040617 20020129 <--EP 1621198 A2 20060201 EP 2005-23971 20020129 <--EP 1621198 A3 20060412 EP 1621198 B1 20070523 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR AT 322894 20060415 AT 2002-716434 20020129 <--Т PT 1355639 Т PT 2002-716434 20020129 <--20060630 CN 1813745 Α 20060809 CN 2005-10022828 20020129 <--EP 1712225 EP 2006-15782 20020129 <--A1 20061018 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR ES 2261652 ES 2002-2716434 Т3 20061116 20020129 <--CN 1879624 Α 20061220 CN 2006-10094388 20020129 <--AT 362763 AT 2005-23971 Т 20070615 20020129 <--IN 2003KN00722 Α 20070914 IN 2003-KN722 20030604 <--Α MX 2003PA06603 20040212 MX 2003-PA6603 20030723 <--A1 HK 1061805 20060804 HK 2004-104847 20040706 <--AU 2005-201772 20050427 <--AU 2005201772 A1 20050519 AU 2005201772 B2 20070517 AU 2007201701 AU 2007-201701 A1 20070510 20070417 PRAI US 2001-770210 Α 20010129 <--AU 2002-226752 **A3** 20020129 <--A3 CN 2002-803551 20020129 <--CN 2005-10022828 **A3** <--20020129 EP 2002-716434 **A3** 20020129 <--EP 2005-23971 A3 20020129 <--W WO 2002-JP626 20020129 <---AU 2005-201772 A3 20050427 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN L9 The antipsychotic aripiprazole is a potent, partial agonist at the human ΤI 5-HT1A receptor

Aripiprazole, 7-{4-[4-(2,3-dichlorophenyl)-1-piperazinyl]butyloxy}-3,4-

dihydro-2(1H)-quinolinone, a novel antipsychotic with partial agonist activity at dopamine D2 receptors, bound with high affinity to recombinant

AB

pharmaceutically acceptable salt or solvate thereof.

human 5-HT1A receptors (h5-HT1A) in Chinese hamster ovary cell membranes and displayed potent, partial agonism at 5-HT1A receptors in a guanosine-5'-O-(3-[35S]thio)-triphosphate ([35S]GTP\gammaS)-binding assay that was blocked completely by a selective 5-HT1A receptor antagonist. An interaction with 5-HT1A receptors may contribute to the overall efficacy of aripiprazole against symptoms of schizophrenia, including anxiety, depression, cognitive and neg. symptoms, and to its favorable side-effect profile. Combined with previous studies demonstrating the potent partial agonism of aripiprazole at dopamine D2 receptors, this study suggests aripiprazole is the first dopamine-serotonin system stabilizer.

- AN 2002:440186 HCAPLUS <<LOGINID::20071024>>
- DN 138:83213
- TI The antipsychotic aripiprazole is a potent, partial agonist at the human 5-HT1A receptor
- AU Jordan, Shaun; Koprivica, Vuk; Chen, Ruoyan; Tottori, Katsura; Kikuchi, Tetsuro; Altar, C. Anthony
- CS Maryland Research Laboratories, Neuroscience Department, Otsuka Maryland Research Institute, Rockville, MD, 20850, USA
- SO European Journal of Pharmacology (2002), 441(3), 137-140 CODEN: EJPHAZ; ISSN: 0014-2999
- PB Elsevier Science B.V.
- DT Journal
- LA English
- RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d 110 1-34 ti YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

- L10 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Transdermal delivery of systemically active central nervous system drugs
- L10 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Synergistic pharmaceutical compositions containing olanzapine and analgetic drugs
- L10 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Therapeutic placebo enhancement of commonly used medications
- L10 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Pharmaceutical compositions for prevention of overdose or abuse
- L10 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Method of using a cyclooxygenase 2 (COX-2) inhibitor and a 5-HT1A receptor modulator as a combination therapy for pain, inflammation, and other conditions
- L10 ANSWER 6 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Combination therapy for depression, prevention of suicide, and various medical and psychiatric conditions
- L10 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods for treating depression and other CNS disorders using enantiomerically enriched desmethyl- and didesmethyl- metabolites of citalogram
- L10 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Collegium Internationale Neuro-Psychopharmacologicum (C.I.N.P.): XXIIIrd congress: Montreal, Canada, 23-27 June 2002

- L10 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Molecular Properties That Influence the Oral Bioavailability of Drug Candidates
- L10 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of dihydroimidazo[2,1-b]thiazoles and dihydro-5H-thiazolo[3,2-a]pyrimidines with 5-HT receptor affinity
- L10 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Curative method for pathologic syndromes and homeopathic medicinal preparations
- L10 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Transdermal or transmucosal dosage forms containing nicotine for smoking cessation
- L10 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Smoking in patients receiving psychotropic medications: A pharmacokinetic perspective
- L10 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods of determining individual hypersensitivity to a pharmaceutical agent from gene expression profile
- L10 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods and compositions for the treatment of neuroleptic and related disorders using sertindole derivatives
- L10 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Compositions and methods for improved delivery of ionizable hydrophobic therapeutic agents
- L10 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI QSAR model for drug human oral bioavailability. [Erratum to document cited in CAl33:159633]
- L10 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Analysis of urine for drugs of abuse using mixed-mode solid-phase extraction and gas chromatography-mass spectrometry
- L10 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI QSAR Model for Drug Human Oral Bioavailability
- L10 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Extractableness of relevant toxicological compounds with 1-chlorbutane
- L10 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of substituted benzopyran derivatives as anticonvulsants
- L10 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Olanzapine: pharmacokinetic and pharmacodynamic profile
- L10 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of substituted isoquinolines as anticonvulsants
- L10 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of substituted isoquinolinyl ureas as anticonvulsants
- L10 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Metabolic bioactivation reactions potentially related to drug toxicities
- L10 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Preparation of heteroaryloxy alkanamines having effects on serotonin-related systems

- L10 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Polymorphic drug oxidation: Relevance to the treatment of psychiatric disorders
- L10 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Capillary zone electrophoresis in a comprehensive screen for basic drugs in whole blood
- L10 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Bicyclic compounds, including benzopyrans, with pharmaceutical activity
- L10 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI preparation of cholecystokinin analogs containing  $\alpha\text{-substituted}$  amino acids as appetite suppressants
- L10 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Drugs abused by humans preferentially increase synaptic dopamine concentrations in the mesolimbic system of freely moving rats
- L10 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Antinicotinic effects of drugs with clinically useful sedative-antianxiety properties
- L10 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Cataleptic state and hypothermia in mice, caused by central cholinergic stimulation and antagonized by anticholinergic and antidepressant drugs
- L10 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Relation of psychological drugs to the adrenergic and cholinergic systems
- => d 110 2 5 7 10 12 13 1521 22 29 31 32 33 ti abs bib
  YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' CONTINUE? (Y)/N:n
- => d 110 2 5 7 10 12 13 15 21 22 29 31 32 33 ti abs bib YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y
- L10 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Synergistic pharmaceutical compositions containing olanzapine and analgetic drugs
- AB The subject of the invention is a pharmaceutical product, which contains olanzapine or its medically acceptable salt and one or more pain relieving active ingredients. The product according to the invention has a synergetic effect. Thus tablets were prepared from a composition (weight parts):

hydroxypropyl cellulose 4.0; olanzapine 1.18; ibuprofen 3.0; lactose 79.32; Crospovidon 5; cellulose 10; magnesium stearate 0.5. The tablets were coated with a mixture of hydroxypropyl methylcellulose, polyethylene glycol, polysorbat 80 and titania.

- AN 2007:265980 HCAPLUS <<LOGINID::20071024>>
- DN 146:448301
- TI Synergistic pharmaceutical compositions containing olanzapine and analgetic drugs
- IN Shannon, Harlan E.; Womer, Daniel E.
- PA USA
- SO Hung. Pat. Appl., 38pp. CODEN: HUXXCV
- DT Patent
- LA Hungarian

```
FAN.CNT 1
    PATENT NO.
              KIND DATE APPLICATION NO. DATE
                          _____
                                    ______
                                                      -----
                    ----
    _____
                    A2
                          20000228 HU 1999-3375
    HU 9903375
                                                       19970324 <--
PΙ
                     A3
    HU 9903375
                          20000428
PRAI HU 1999-3375
                          19970324 <--
L10 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
    Method of using a cyclooxygenase 2 (COX-2) inhibitor and a 5-HT1A receptor
    modulator as a combination therapy for pain, inflammation, and other
```

- AB Compns. and methods to treat or prevent pain, inflammation, or inflammation-related disorder, as well as a neurol. disorder involving neurodegeneration involve a combination of a COX-2 inhibitor and a 5-HT1A receptor modulator.
- AN 2004:452952 HCAPLUS <<LOGINID::20071024>>
- DN 141:1296
- TI Method of using a cyclooxygenase 2 (COX-2) inhibitor and a 5-HT1A receptor modulator as a combination therapy for pain, inflammation, and other conditions
- IN Stephenson, Diane T.; Taylor, Duncan P.
- PA Pharmacia Corporation, USA
- SO PCT Int. Appl., 195 pp.

CODEN: PIXXD2

- DT Patent
- LA English

FAN.CNT 1

	PAT	ENT	NO .			KINI	)	DATE		i	APPL:	ICAT:	ION 1	NO.		D?	ATE	
PI		2004				A2 A3		2004		Ţ	WO 2	003-1	US35	739		20	0031	111 <
	,,,	W:	AE, CO, GH, LR, OM, TN, BW, BY,	AG, CR, GM, LS, PG, TR, GH, KG,	AL, CU, HR, LT, PH, TT, GM, KZ, FR,	AM, CZ, HU, LU, PL, TZ, KE, MD, GB,	AT, DE, ID, LV, PT, UA, LS, RU, GR,	AU, DK, IL, MA, RO, UG, MW, TJ, HU,	AZ, DM, IN, MD, RU, US, MZ, TM, IE,	DZ, IS, MG, SC, UZ, SD, AT, IT,	EC, JP, MK, SD, VC, SL, BE, LU,	EE, KE, MN, SE, VN, SZ, BG, MC,	EG, KG, MW, SG, YU, TZ, CH,	ES, KP, MX, SK, ZA, UG, CY,	FI, KR, MZ, SL, ZM, ZM, CZ, RO,	ZW, DE, SE,	GD, LC, NO, TJ, AM, DK, SI,	GE, LK, NZ, TM, AZ, EE,
	US	2004	•	•	20,	A1		•	•	•		~ .		•	•	•	•	105 <
	AU	2003	2954	31		A1		2004	0615		AU 2	003-	2954	31		20	0031	111 <
PRAI	US	2002	-427	198P		P		2002	1118	< -	-							
	WO	2003	-US3	5739		W		2003	1111									

- L10 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Methods for treating depression and other CNS disorders using enantiomerically enriched desmethyl- and didesmethyl- metabolites of citalogram

AB This invention relates to the preparation of I and II and derivs. of I and II in their racemic, enantiomerically enriched, or optically pure forms. This invention further relates to novel compns. of matter containing enantiomerically enriched (-)-desmethylcitalopram (-)-III (R = Me), (+)-didesmethylcitalopram (+)-III (R = Me), or (-)-didesmethylcitalopram (-)-III (R = H) or mixts. thereof in optimal ratios. Contrary to prior teachings, the enantiomerically enriched citalopram metabolites disclosed herein possess potent serotonin reuptake inhibitory activity, with minimal inhibitory effects on the reuptake of other known monoamines, e.g., norepinephrine (NE) or dopamine (DA). For example, stepwise reaction of 1-oxo-1,3-dihydroisobenzofuran-5-carbonitrile with 4-fluorophenylmagnesium bromide and the chiral Grignard reagent, which was prepared from 2-(2-bromoethyl)-[1,3]dioxolane and Mg powder, in THF gave II. Cyclization using mesyl chloride in CH2Cl2, followed by reduction provided the I. Reaction of the aldehyde with (-)-tert-butylsulfinamide in the presence of Ti(OEt)4 in EtOH afforded the sulfinamide, which was reduced to the amine III (R = H) with 10% HCl in MeOH. Protection of the amine with BOC anhydride in the presence of TEA in CH2Cl2 provided the enantiomerically enriched isomers, which were separated on a chiral column and subsequently deprotected with TFA to give (+)-III (R = H) and (-)-III (R = H)In biol. assays, (-)-III (R = H) and (+)-III (R = H) strongly inhibited serotonergic 5-HT receptor activity with Ki values of 5.8 nM and 90 nM, resp., with little effect on NE and DA transporter activity. By comparison, racemic citalopram inhibited serotonin reuptake with a Ki of 3.9 nM. The present invention also discloses methods for treating disorders, dysfunctions and diseases for which inhibition of serotonin reuptake is therapeutically beneficial. In particular, the present invention discloses a method for treating various forms of depression and other CNS disorders with pharmaceutical compns. described herein.

AN 2003:376842 HCAPLUS <<LOGINID::20071024>>

DN 138:385297

TI Methods for treating depression and other CNS disorders using enantiomerically enriched desmethyl- and didesmethyl- metabolites of citalogram

IN Bush, Larry R.; Currie, Mark G.; Senanayake, Chris H.; Fang, Kevin Q.

PA Sepracor, Inc., USA
SO PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DT Patent

LA English

FAN.CNT 1

111111	PAT		KIND	DATE	APPLICATION NO.	DATE
ΡI					WO 2002-US35408	
		W: AE, AG, A	L, AM,	AT, AU, AZ,	BA, BB, BG, BR, BY,	BZ, CA, CH, CN,
		CO, CR, C	U, CZ,	DE, DK, DM,	DZ, EC, EE, ES, FI,	GB, GD, GE, GH,
		GM, HR, H	U, ID,	IL, IN, IS,	JP, KE, KG, KP, KR,	KZ, LC, LK, LR,
		LS, LT, I	U, LV,	MA, MD, MG,	MK, MN, MW, MX, MZ,	NO, NZ, OM, PH,
		PL, PT, F	O, RU,	SD, SE, SG,	SI, SK, SL, TJ, TM,	TN, TR, TT, TZ,
		UA, UG, U	S, UZ,	VN, YU, ZA,	ZM, ZW	
		RW: GH, GM, K	Ė, LS,	MW, MZ, SD,	SL, SZ, TZ, UG, ZM,	ZW, AT, BE, BG,
		CH, CY, C	Z, DE,	DK, EE, ES,	FI, FR, GB, GR, IE,	IT, LU, MC, NL,
		PT, SE, S	K, TR,	BF, BJ, CF,	CG, CI, CM, GA, GN,	GQ, GW, ML, MR,
		NE, SN, T				
		2465186	A1	20030515	CA 2002-2465186	20021105 <
					AU 2002-356903	20021105 <
		2002356903				
	EΡ				EP 2002-802848	
		•			GB, GR, IT, LI, LU,	
				• •	CY, AL, TR, BG, CZ,	•
		2002013949			BR 2002-13949	
	HU	2004001934	A2	20050128	HU 2004-1934	20021105 <
	HU	2004001934	A3	20070529	JP 2003-542167	
	JР	2005510518	T	20050421	JP 2003-542167	20021105 <
	CN	1705654	A	20051207	CN 2002-822084	20021105 <
	NZ	532478	A	20070223	NZ 2002-532478	20021105 <
	IN	2004KN00505	A	20060616	IN 2004-KN505	20040419 < 20040505 <
		2004003409				
					MX 2004-PA4368	
		2004266864		20041230	US 2004-842055	20040507 <
	NO	2004002013	A	20040514	NO 2004-2013	20040514 <
PRAI						
		2002-US35408				g 27.5022
RE.C	NT'	5 THERE AF	E 5 CIT	LED REFERENC	ES AVAILABLE FOR THI	S RECORD

L10 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN

ALL CITATIONS AVAILABLE IN THE RE FORMAT

Preparation of dihydroimidazo[2,1-b]thiazoles and dihydro-5H-thiazolo[3,2-a]pyrimidines with 5-HT receptor affinity

GI

$$\begin{bmatrix} \mathbf{CH_2} \\ \mathbf{n} \end{bmatrix}_{\mathbf{g}} \qquad \mathbf{I} \qquad \mathbf{Me} \qquad \mathbf{N} \qquad \mathbf{II}$$

AB The title compds. [I; g = 0.5; n = 2.3; R1 = halo, alkyl, alkoxy, etc.; R2

= H, alkyl, hydroxyalkyl, etc.; the condensed thiazole ring is attached at the 4,5,6 or 7-position of the benzofuran ring] which have affinity for 5-HT1A receptors and which inhibit neuronal re-uptake of 5-hydroxytryptamine and/or noradrenaline, to processes for their preparation, to pharmaceutical compns. containing them and to their use in the treatment of depression, anxiety, psychoses (for example schizophrenia), tardive dyskinesia, obesity, drug addiction, drug abuse, cognitive disorders, Alzheimer's disease, obsessive-compulsive behavior, panic attacks, social phobias, eating disorders such as bulimia, anorexia, snacking and binge eating, non-insulin dependent diabetes mellitus, hyperglycemia, hyperlipidemia, stress, as an aid to smoking cessation and in the treatment and/or prophylaxis of seizures, neurol. disorders such as epilepsy and/or conditions in which there is neurol. damage such as stroke, brain trauma, cerebral ischemia, head injuries and hemorrhage, were prepared and formulated. Thus, treating 1-(benzo[b]furan-7-yl)propan-1one (preparation given) with phenyltrimethylammonium tribromide in THF followed by reaction of the intermediate with 2-imidazolidinethione in the presence of AcOH in EtOH afforded II.HBr which showed Ki of 28 nM against 5-HT1A binding. 2002:256267 HCAPLUS <<LOGINID::20071024>> 136:279473 Preparation of dihydroimidazo[2,1-b]thiazoles and dihydro-5H-thiazolo[3,2a]pyrimidines with 5-HT receptor affinity Brough, Paul; Watts, John Paul; Cockroft, Victor; Kerrigan, Frank; Doyle, Kevin James Knoll G.m.b.H., Germany PCT Int. Appl., 66 pp. CODEN: PIXXD2 Patent English FAN.CNT 1 APPLICATION NO. DATE PATENT NO. KIND DATE \_\_\_\_\_\_ \_\_\_\_ \_ \_ \_ \_ \_ \_ \_ \_ \_\_\_\_\_\_ WO 2002026747 A1 20020404 WO 2001-GB4317 20010927 <--W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG A5 20020408 AU 2001-90126 20010927 <--AU 2001090126 PRAI GB 2000-23610 Α 20000927 <--WO 2001-GB4317 W 20010927 MARPAT 136:279473 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN Transdermal or transmucosal dosage forms containing nicotine for smoking cessation A transdermal or transmucosal pharmaceutical for the treatment of nicotine dependence or to the smoking cessation contains nicotine, nicotine salt, nicotine derivative or a material with nicotinergic effect, in combination with another drug affecting the central nervous system. 135:335142 Transdermal or transmucosal dosage forms containing nicotine for smoking cessation

ΑN

DN

TI

IN

PΑ

SO

DT

T.A

ΡI

L10

TI

AB

ΑN

DN

TΤ

IN

PA

Theobald, Frank; Frick, Ulrich

LTS Lohmann Therapie-Systeme A.-G., Germany

SO Ger. Offen., 6 pp.

CODEN: GWXXBX

DT Patent LA German

FAN. CNT 1

FAN.	PATENT NO.									APPLICATION NO.						DATE			
PI			8834			A1	A1 20011025												
		2001080837															20010402 <		
	WO	2001						2002											
			•	•	,	•	•	HU,	•	•		•	•	•			•	•	ZA
		RW:	•	•		CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙĒ,	IT,	LU,	MC,	ΝL,	
				SE,															
		2404				A1		2002											
		1274				A2		2003	-		EP 2	001-	9294	88		2	0010	402 <	<
	ΕP	1274				В1		2004											
		R:					DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,	
			•	FI,	,														
		2003										:003-						402 4	
	BR	2001	0100	60		A		2003				001-						402 4	
		2004		90				2004				001-						402 4	
		2681				T		2004				001-						402 -	
	ES	2220	772			Т3		2004	1216		ES 2	001-	1929	488		2	0010	402 •	<
	ΝŻ	5211	55					2006	0224		NZ 2	001-	5211	55		2	0010	402 4	<
	_	2301	-			_		2007				002-		-				402 -	
		2002				Α		2003				002-				_		B23 •	
	MX	2002	PA09	104		Α		2003	0312		MX 2	002-	PA91	04		2	0020	918 •	<
		2002		-		Α		2005				002-						001 4	
		2003		80		A1		2003	0313			002-						015 •	
		1051				A1		2004			HK 2	003-	1036	50		2	0030	523	<
PRAI						Α		2000			-								
	WO	2001	-EP3	712		W		2001	0402	<-	-								

- RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L10 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Smoking in patients receiving psychotropic medications: A pharmacokinetic perspective
- A review with refs. Many psychiatric patients smoke, and are believed to AB be heavier smokers than those without psychiatric disorders. Cigarette smoking is one of the environmental factors that contributes to interindividual variations in response to an administered drug. Polycyclic aromatic hydrocarbons (PAHs) present in ciqarette smoke induce hepatic aryl hydrocarbon hydroxylases, thereby increasing metabolic clearance of drugs that are substrates for these enzymes. PAHs have been shown to induce 3 hepatic cytochrome P 450 (CYP) isoenzymes, primarily CYP1A1, 1A2 and 2E1. Drug therapy can also be affected pharmacodynamically by nicotine. The most common effect of smoking on drug disposition in humans is an increase in biotransformation rate, consistent with induction of drug-metabolizing enzymes. Induction of hepatic enzymes has been shown to increase the metabolism and to decrease the plasma concns. of imipramine, clomipramine, fluvoxamine and trazodone. The effect of smoking on the plasma concns. of amitriptyline and nortriptyline is variable. Amfebutamone (bupropion) does not appear to be affected by cigarette smoking. Smoking is associated with increased clearance of tiotixene, fluphenazine, haloperidol and olanzapine. Plasma concns. of chlorpromazine and clozapine are reduced by cigarette smoking. Clin., reduced drowsiness in smokers receiving chlorpromazine, and benzodiazepines, compared with non-smokers has been reported. Increased clearance of the benzodiazepines alprazolam, lorazepam, oxazepam, diazepam and demethyl-diazepam is found in cigarette smokers, whereas chlordiazepoxide does not appear to be affected by smoking. Carbamazepine appears to be minimally affected by

cigarette smoke, perhaps because hepatic enzymes are already stimulated by its own autoinductive properties. Cigarette smoking can affect the pharmacokinetic and pharmacodynamic properties of many psychotropic drugs. Clinicians should consider smoking as an important factor in the disposition of these drugs. 2001:547621 HCAPLUS <<LOGINID::20071024>> 135:314505 Smoking in patients receiving psychotropic medications: A pharmacokinetic perspective Desai, Hiral D.; Seabolt, Julia; Jann, Michael W. Department of Pharmacy Practice and Pharmaceutical Sciences, Southern School of Pharmacy, Mercer University, Atlanta, GA, USA CNS Drugs (2001), 15(6), 469-494 CODEN: CNDREF; ISSN: 1172-7047 Adis International Ltd. Journal; General Review English THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 94 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN L10Methods and compositions for the treatment of neuroleptic and related disorders using sertindole derivatives The invention relates to novel methods using, and pharmaceutical compns. and dosage forms comprising, sertindole derivs. Sertindole derivs. include, but are not limited to, nor-sertindole, 5-oxo-sertindole, dehydro-sertindole, and dehydro-nor-sertindole. The methods of the invention are directed to the treatment and prevention of neuroleptic and related disorders such as, but are not limited to, psychotic disorders, depression, anxiety, substance addiction, memory impairment and pain. For example, capsules were prepared containing a sertindole derivative 50.0 mg, lactose 48.5 mg, TiO2 0.5 mg, and Mg stearate 2000:861482 HCAPLUS <<LOGINID::20071024>> Methods and compositions for the treatment of neuroleptic and related disorders using sertindole derivatives Jerussi, Thomas P. Sepracor Inc., USA PCT Int. Appl., 33 pp. CODEN: PIXXD2 Patent English FAN.CNT 1 KIND DATE APPLICATION NO. DATE PATENT NO. \_\_\_\_ -----------WO 2000072837 A2 20001207 WO 2000-US14984 20000531 <--A3 20010517 WO 2000072837 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 6489341 B1 20021203 US 2000-580492 20000530 <--PRAI US 1999-137447P Р 19990602 <---US 2000-580492 Α 20000530

L10 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN

Preparation of substituted benzopyran derivatives as anticonvulsants TT

ΑN DN

TI

ΑU

CS

SO

PB DT

LΑ

ΤI

AB

ΑN

IN

PA

SO

DT

LA

PΙ

The title anti-convulsant compds. [I; R1 = alkylcarbonyl in which alkyl is AB substituted by OH; R2 = H, cycloalkyl, alkyl, etc.; Ra = H, halo, NO2, etc.; Rb = H, halo, NO2, etc.; one of R3 and R4 = H or alkyl and the other = alkyl, CF3, CH2Xa (Xa = F, Cl, Br, etc.); R3R4 together = (un) substituted by alkyl polymethylene; R5 = alkylcarbonyloxy, PhCO2, ONO2, PhCH2O, PhO, alkoxy and R6 and R9 = H or R5 = OH and R6 and R9 = H, alkyl; R7 = (un) substituted heteroaryl, Ph; R8 = H, alkyl, OH, etc.; R7R8 together = alkylene and R8NCOR7 is cis or trans to the R5], potentially useful in the treatment and/or prevention of anxiety, mania, depression, panic disorders and/or aggression, disorders associated with a subarachnoid hemorrhage or neural shock, the effects associated with withdrawal from substances of abuse such as cocaine, nicotine, alc. and benzodiazepines, disorders treatable and/or preventable with anti-convulsive agents, such as epilepsy including post-traumatic epilepsy, Parkinson's disease, psychosis, migraine, cerebral ischemia, Alzheimer's disease and other degenerative diseases, etc., were prepared Thus, treatment of (3R,4S)-6-acetyl-4-(3,5-difluorobenzamido)-3,4-dihydro-2,2-dimethyl-3-hydroxy-2H-1-benzopyran with bis[(trifluoroacetoxy)iodo]ben zene and F3CCO2H in MeCN/H2O afforded 36% (3R,4S)-I [R1 = HOCH2CO; R2 = H; Ra = Rb = H; R3 = R4 = Me; R5 = OH; R6 = H; R7 = 3,5-F2C6H3; R8 = R9 = H]which showed an increase in seizure threshold relative to control of 317% at 1 mg/kg (tested 30 min post dosing to rats).

AN 2000:15193 HCAPLUS <<LOGINID::20071024>>

DN 132:64171

TI Preparation of substituted benzopyran derivatives as anticonvulsants

Bell, David; Cox, Peter J.; Thompson, Mervyn; Turner, Gillian

PA Smithkline Beecham Plc, UK

SO PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

IN

111111	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	WO 2000000484	A1 20000106	WO 1999-GB2000	19990625 <
	√W: CA, JP, US			
	RW: AT, BE, CH,	CY, DE, DK, ES,	FI, FR, GB, GR, IE, IT	, LU, MC, NL,
	PT, SE		•	
	CA 2335846	A1 20000106	CA 1999-2335846	19990625 <
	EP 1091950	A1 20010418	EP 1999-926667	19990625 <
	EP 1091950	B1 20030409		
	R: BE, CH, DE,	ES, FR, GB, IT,	LI, NL	
	JP 2002519347	T 20020702	JP 2000-557245	19990625 <
	ES 2197645	T3 20040101	ES 1999-926667	19990625 <
	US 6395909	B1 20020528	US 2000-720019	20001219 <
PRAI	GB 1998-13949	A 19980629	<	
	WO 1999-GB2000	W 19990625	<	
os	MARPAT 132:64171			

## RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN Olanzapine: pharmacokinetic and pharmacodynamic profile ΤI A review with 56 refs. Multicenter trials in patients with schizophrenia AB confirm that olanzapine is a novel antipsychotic agent with broad efficacy, eliciting a response in both the pos. and neg. symptoms of schizophrenia. Compared with traditional antipsychotic agents, olanzapine causes a lower incidence of extrapyramidal symptoms and minimal perturbation of prolactin levels. Generally, olanzapine is well tolerated. The pharmacokinetics of olanzapine are linear and dose-proportional within the approved dosage range. Its mean half-life in healthy individuals is 33 h, ranging 21-54 h. The mean apparent plasma clearance is 26 L/h, ranging 12-47 L/h. Smokers and men have a higher clearance of olanzapine than women and nonsmokers. After administering [14C] olanzapine, approx. 60% of the radioactivity is excreted in urine and 30% in feces. Olanzapine is predominantly bound to albumin (90%) and  $\alpha$ 1-acid glycoprotein (77%). Olanzapine is metabolized to its 10- and 4'- N-glucuronides, 4'-N-demethylolanzapine [cytochrome P 450 (CYP) 1A2] and olanzapine N-oxide (flavin monooxygenase 3). Metabolism to 2-hydroxymethylolanzapine via CYP2D6 is a minor pathway. The 10-N-glucuronide is the most abundant metabolite, but formation of 4'-N-demethylolanzapine is correlated with the clearance of olanzapine. Olanzapine does not inhibit CYP isoenzymes. No clin. significant metabolic interactions have been found between olanzapine and diazepam, EtOH, imipramine, R/S-warfarin, aminophylline, biperiden, lithium or fluoxetine. Fluvoxamine, an inhibitor of CYP1A2, increases plasma concns. of olanzapine; inducers of CYP1A2, including tobacco smoke and carbamazepine, decrease olanzapine concns. Orthostatic changes have been observed when olanzapine and diazepam or alc. were coadministered. Pharmacodynamic interactions occur between olanzapine and alc., and olanzapine and imipramine, implying that patients should avoid operating hazardous equipment or driving an automobile while experiencing the short-term effects of the combinations. Individual factors with the largest impact on olanzapine pharmacokinetics are gender and smoking status. The plasma clearance of olanzapine generally varies over a 4-fold range, but the variability in the clearance and concentration of olanzapine does not appear to be associated with the severity or duration of adverse effects or the degree of efficacy. Thus, dosage adjustments appear unnecessary for these individual factors. However, dosage modification should be considered for patients characterized by a combination of factors associated with decreased oxidative metabolism, for example, debilitated or elderly women who are nonsmokers. 1999:656821 HCAPLUS <<LOGINID::20071024>> AN DN131:266443 TI Olanzapine: pharmacokinetic and pharmacodynamic profile Callaghan, John T.; Bergstrom, Richard F.; Ptak, Louis R.; Beasley, ΑU Charles M. Lilly Laboratory for Clinical Research, Indiana University Hospital and CS Outpatient Center, Indianapolis, IN, USA Clinical Pharmacokinetics (1999), 37(3), 177-193 SO CODEN: CPKNDH; ISSN: 0312-5963 PB Adis International Ltd. DT Journal; General Review English LA RE.CNT 56 THERE ARE 56 CITED REFERENCES AVAILABLE FOR THIS RECORD

L10 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Bicyclic compounds, including benzopyrans, with pharmaceutical activity

ALL CITATIONS AVAILABLE IN THE RE FORMAT

$$R^8$$
 $R^9$ 
 $R^7$ 
 $R^6$ 
 $R^6$ 
 $R^3$ 
 $R^4$ 
 $R^4$ 
 $R^8$ 
 $R^8$ 

AB Use of title compds. I and their pharmaceutically acceptable salts for manufacture of drugs for treatment and/or prophylaxis of disorders resulting from subarachnoid hemorrhage, neural shock, cerebral ischemia, Parkinson's disease, migraine, and/or psychosis is claimed [wherein either Y = N and R2 = H, or Y = CR1, wherein either (1) one of R1 and R2 = H and the other = H or any of a wide variety of substituents, or (2) one of R1 and R2 = NO2, cyano, or alkylcarbonyl, and the other = OMe, (di)(alkyl)amino, alkanoylamino; or (3) R1R2 = (CH2)4, CH:CHCH:CH, or atoms to form (un) substituted triazole or oxadiazole ring; one of R3 and R4 = H or alkyl, and the other = alkyl, CF3, various monosubstituted Me groups (e.g., halomethyl); either (1) R5 = alkylcarbonyloxy, OBz, ONO2, OCH2Ph, OPh, or alkoxy, and R6 = R9 = H, or (2) R5 = OH, R6 = H or alkyl, and R9 = H; R7 = (un)substituted Ph or heteroaryl; R8 = H, alkyl, OR9, NHCOR10; R9 = H, alkyl, CHO, alkanoyl, aroyl, aralkyl; R10 = H, alkyl, alkoxy, (di)(alkyl)amino, aminoalkyl, (hetero)aryl, etc.; X = O, NR11; R11 = H, alkyl; R5 is trans to NR8COR7 group]. Use of a similar set of compds. for manufacturing drugs for therapy of anxiety, mania, depression, substance withdrawal, convulsions, and epilepsy is also claimed. A variety of tests are described, and results for a few compds. in the anticonvulsant and antiischemic tests are given. A list of 68 individual compds. I, most of which are novel, is given, and methods for their synthesis are either described or referenced. For example, amidation of picolinic acid with trans-4S-amino-3,4-dihydro-2,2-dimethyl-2H-1-benzopyran-3R-ol [as the D-(-)-mandelate salt] gave title compound II. Three compds. I gave 44-154% increases in seizure threshold at 30 mg/kg orally in the maximal electroshock test in mice.

AN 1995:408400 HCAPLUS <<LOGINID::20071024>>

DN 122:187394

TI Bicyclic compounds, including benzopyrans, with pharmaceutical activity

IN Thompson, Mervyn; Evans, John Morris; Upton, Neil; Chan, Wai Ngor; Vong,
 Kuok Keong; Willette, Robert Nicholas

PA Smithkline Beecham PLC, UK; Smithkline Beecham Corp.

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2
DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE \_ \_ \_ \_ ----------WO 1993-GB2512 ΡI WO 9413656 A1 19940623 19931208 <--W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN

```
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
             BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG
     CA 2151515
                          A1
                                19940623
                                            CA 1993-2151515
                                                                   19931208 <--
     AU 9456557
                                19940704
                                            AU 1994-56557
                                                                   19931208 <--
                          Α
     AU 679475
                                19970703
                          B2
     EP 673373
                          A1
                                19950927
                                            EP 1994-902044
                                                                    19931208 <--
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
     JP 08505132
                          Т
                                19960604
                                            JP 1993-513934
                                                                    19931208 <--
                                            JP 2002-260175
                                                                    19931208 <--
     JP 2003137880
                          Α
                                20030514
     ZA 9309238
                                            ZA 1993-9238
                         Α
                                19941014
                                                                    19931209 <--
     CN 1094613
                                            CN 1993-121686
                         A
                                19941109
                                                                   19931210 <--
     CN 1066625
                         В
                                20010606
                         195
2007
195
. 19
A 17
A J
A
     US 5908860
                         A
                                            US 1995-448518
                                                                   19950706 <--
                                19990601
     CN 1227099
                                19990901
                                            CN 1998-126100
                                                                   19981224 <--
     CN 1270169
                                20001018
                                            CN 1999-124893
                                                                   19991119 <--
PRAI GB 1992-25881
                                19921211 <--
     GB 1992-25956
                                19921211
                                          <--
     GB 1992-25957
                                19921211
                                          <---
     GB 1992-25963
                                19921211
                                          <---
     GB 1992-25964
                                19921211
                                          <--
     JP 1994-513934
                                19931208
                                          <--
                                19931208 <--
     WO 1993-GB2512
     MARPAT 122:187394
OS
```

- L10 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Drugs abused by humans preferentially increase synaptic dopamine concentrations in the mesolimbic system of freely moving rats
- The effect of various drugs on the extracellular concentration of dopamine in 2 AB terminal dopaminergic areas, the nucleus accumbens septi (a limbic area) and the dorsal caudate nucleus (a subcortical motor area), was studied in freely moving rats by using brain dialysis. Drugs abused by humans (e.g., opiates, ethanol, nicotine, amphetamine, and cocaine) increased extracellular dopamine concns. in both areas, especially in the accumbens, and elicited hypermotility at low doses. On the other hand, drugs with aversive properties (e.g., agonists of κ opioid receptors, U-50,488, tifluadom, and bremazocine) reduced dopamine release in the accumbens and in the caudate and elicited hypomotility. Haloperidol, a neuroleptic drug, increased extracellular dopamine concns., but this effect was not preferential for the accumbens and was associated with hypomotility and sedation. Drugs not abused by humans [e.g., imipramine (an antidepressant), atropine (an antimuscarinic drug), and diphenhydramine (an antihistamine) failed to modify synaptic dopamine concns. These results provide biochem. evidence for the hypothesis that stimulation of dopaminergic neurotransmission in the limbic system might be a fundamental property of drugs that are abused.
- AN 1988:504610 HCAPLUS <<LOGINID::20071024>>
- DN 109:104610
- TI Drugs abused by humans preferentially increase synaptic dopamine concentrations in the mesolimbic system of freely moving rats
- AU Di Chiara, Gaetano; Imperato, Assunta
- CS Inst. Exp. Pharmacol. Toxicol., Univ. Cagliari, Cagliari, 09100, Italy
- SO Proceedings of the National Academy of Sciences of the United States of America (1988), 85(14), 5274-8
  CODEN: PNASA6; ISSN: 0027-8424
- DT Journal
- LA English
- L10 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Antinicotinic effects of drugs with clinically useful sedative-antianxiety properties
- GI For diagram(s), see printed CA Issue.
- AB Mice were given a drug orally and 2 hr later were challenged with an i.v. LD95 of (-)-nicotine bitartrate [65-31-6]. Amitriptyline-HCl [549-18-8], imipramine-HCl [113-52-0], doxepin-HCl [1229-29-4],

meprobamate [57-53-4], chlordiazepoxide-HCl [438-41-5], diazepam [439-14-5], trifluoroperazine-2HCl [440-17-5], haloperidol [52-86-8], thioridazine-HCl [130-61-0], chlorpromazine-HCl [69-09-0], phenobarbital sodium (I) [57-30-7], propranolol-HCl [318-98-9], and diphenylhydantoin [57-41-0] were all active in protecting mice from extensor convulsions and lethality. Iproniazid phosphate [305-33-9], tranylcypromine sulfate [13492-01-8], atropine sulfate [55-48-1], benztropine methanesulfonate [132-17-2] and trimethadione [127-48-0] were inactive. There appears to be a relation between blockage of nicotine-induced extensor convulsions and lethality in mice and sedative-antianxiety effects in man. This relation is especially good for drugs designated as antidepressant, antianxiety and antipsychotic.

- AN 1976:364 HCAPLUS <<LOGINID::20071024>>
- DN 84:364
- TI Antinicotinic effects of drugs with clinically useful sedative-antianxiety properties
- AU Aceto, Mario D.
- CS Dep. Pharmacol., Med. Coll. Virginia, Richmond, VA, USA
- SO Pharmacology (1975), 13(5), 458-64 CODEN: PHMGBN; ISSN: 0031-7012
- DT Journal
- LA English
- L10 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2007 ACS on STN
- TI Cataleptic state and hypothermia in mice, caused by central cholinergic stimulation and antagonized by anticholinergic and antidepressant drugs
- A cataleptic state was produced in mice by arecoline (20 mg./kg., i.p.), AB pilocarpine (8 mg./kg., i.p.), tremorine (6 mg./kg., i.p.), nicotine (7 mg./kg., i.p.), and para-oxon (1 mg./kg., s.c.). protect the animals against the peripheral actions of these cholinergics, atropine methylnitrate (5 mg./kg., s.c.) was given before the first 3 drugs, hexamethonium bromide (5 mg./kg., i.p.) before nicotine, and pralidoxime (75 mg./kg., s.c.) before para-oxon. Atropine, scopolamine, imipramine, desipramine, and amitriptyline prevented catalepsy. This antagonistic action was dose-dependent, scopolamine being at least 10-fold more active than atropine. Desipramine was less active than imipramine. With the exception of nicotine, cataleptic doses of the cholinergics also caused hypothermia, which was diminished or abolished by atropine and scopolamine, the latter being, however, inactive against tremorine hypothermia. Anticataleptic doses of the antidepressants did not influence hypothermia. Muscarinic stimulation of the central nervous system causes catalepsy and can cause hypothermia, and catalepsy and hypothermia are independent phenomena. 62 references.
- AN 1968:458277 HCAPLUS <<LOGINID::20071024>>
- DN 69:58277
- OREF 69:10871a,10874a
- TI Cataleptic state and hypothermia in mice, caused by central cholinergic stimulation and antagonized by anticholinergic and antidepressant drugs
- AU Zetler, G.
- CS Inst. Pharmakol., Med. Akad. Luebeck, Luebeck, Fed. Rep. Ger.
- SO International Journal of Neuropharmacology (1968), 7(4), 325-35 CODEN: IJNEAQ; ISSN: 0375-9458
- DT Journal
- LA English